August 9, 2006

Mr. Chuck Zimmerman
Brown and Caldwell
3264 Goni Road, Suite 153
Carson City, NV 89706

Dear Mr. Zimmerman:

Enclosed is the quality assurance review of the analytical data for the analyses of the 15 air filter samples that were collected on June 10, 2006, in association with the ARCO Yerington Mine Site (Event 84). The samples were collectively analyzed for ICP metals, ICP/MS metals, and mercury.

Based on this quality assurance review, several ICP/MS manganese results and all mercury environmental sample results were qualified as "not-detected" due to blank contamination. In addition, several ICP, ICP/MS, and mercury results were qualified as estimated due to positive results reported between the method detection limit and reporting limit.

If you have any questions or comments, please do not hesitate to call.

Sincerely,

Konstadina Vlahogiani, M.S.
Senior Quality Assurance Chemist III/
Project Manager

Concurred by:

Rock J. Vitale, CEAC, CPC
Technical Director of Chemistry/
Principal

KV/RJV:hm
Enc.

cc: Mr. Greg Cole – Brown and Caldwell

QUALITY ASSURANCE REVIEW

OF THE AIR FILTER SAMPLES COLLECTED

AT THE ARCO YERINGTON MINE SITE

ON JUNE 10, 2006 (EVENT 84)

August 9, 2006

Prepared for:

ATLANTIC RICHFIELD COMPANY
28100 Torch Parkway
Warrenville, IL 60555

Prepared by:

ENVIRONMENTAL STANDARDS, INC.
1140 Valley Forge Road
P.O. Box 810
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Issued to:

BROWN AND CALDWELL
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Carson City, NV 89706

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1.0 Introduction

This quality assurance (QA) review is based upon a rigorous examination of all data generated from the analyses of the 15 air filter samples that were collected by Brown and Caldwell on June 10, 2006, in association with the ARCO Yerington Mine Site (Event 84). The samples included in this QA review are specified on Table 1.

This review has been performed with guidance from the "National Functional Guidelines for Inorganic Data Review" (US EPA, February 1994). The aforementioned document has been used to aid the data reviewer in the interpretation of the quality control (QC) analysis results and in the overall evaluation of the sample data deliverables. It should be noted, however, that results affected by blank contamination will be designated with a "UJ" qualifier (not the "U" qualifier typically used when following the National Functional Guidelines) in order to be consistent with historical project validation protocols and the current project database.

The reported analytical results are presented as a summary of the data in Section 2. Data were examined to determine the usability of the analytical results and the compliance relative to the requirements specified in the published analytical methods, the Quality Assurance Project Plan (QAPjP) for the Atlantic Richfield Company Yerington Mine Site (September 2003), and the Technical Requirements For Environmental Laboratory Analytical Services BP Global Contract Lab Network (GCLN) (5/22/02, Revision 08). Qualifier codes have been placed next to results to enable the data user to quickly assess the qualitative and/or quantitative reliability of any result. This critical QA review identifies data quality issues for specific samples and specific evaluation criteria. The data qualifications allow the data's end-user to best understand the usability of the analytical results. Data not qualified in this report should be considered valid based on the QC criteria that have been reviewed. Details of this QA review are presented in Section 1 of this report. This report was prepared to provide a critical review of the laboratory analyses and reported analytical results. Rigorous QA reviews of laboratory-generated data routinely identify various problems associated with analytical measurements, even from the most experienced and capable laboratories.

TABLE 1

SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Field Sample Identification	Laboratory Sample Identification	Report Number	Matrix	Date Sample Collected	Parameters Examined
P-0668	G6F190128-001	G6F190128	Filter	6/10/06	M^1, M^2, Hg
P-0669	G6F190128-002	G6F190128	Filter	6/10/06	M^1, M^2, Hg
P-0670	G6F190128-003	G6F190128	Filter	6/10/06	M^1, M^2, Hg
P-0671	G6F190128-004	G6F190128	Filter	6/10/06	M^1, M^2, Hg
P-0672	G6F190128-005	G6F190128	Filter	6/10/06	M^1, M^2, Hg
P-0673	G6F190128-006	G6F190128	Filter	6/10/06	M^1, M^2, Hg
P-0674 (Field Duplicate of P-0668)	G6F190128-007	G6F190128	Filter	6/10/06	M^1, M^2, Hg
000494	G6F190128-008	G6F190128	Filter	6/10/06	M^1, M^2, Hg
000495	G6F190128-009	G6F190128	Filter	6/10/06	M^1, M^2, Hg
000496	G6F190128-010	G6F190128	Filter	6/10/06	M^1, M^2, Hg
000497	G6F190128-011	G6F190128	Filter	6/10/06	M^1, M^2, Hg
000498	G6F190128-012	G6F190128	Filter	6/10/06	M^1, M^2, Hg
000499	G6F190128-013	G6F190128	Filter	6/10/06	M^1, M^2, Hg
000500 (Trip Blank)	G6F190128-014	G6F190128	Filter	6/10/06	M^1, M^2, Hg
000501 (Field Blank)	G6F190128-015	G6F190128	Filter	6/10/06	M^1, M^2, Hg

NOTES:

M^1 - Metals (specifically, silver, arsenic, barium, beryllium, cadmium, cobalt, chromium, copper, manganese, molybdenum, nickel, lead, selenium, vanadium, and zinc) by SW-846 Method 6020. (15 analyses)

M^2 - Metals (specifically, aluminum, calcium, iron, magnesium, and sodium) by SW-846 Method 6010B. (15 analyses)

Hg - Mercury by SW-846 Method 7471A. (15 analyses)

2.0 Findings

Complete support documentation for this inorganic QA review is presented in Section 8.0 of this report. The cover sheet for this section is a checklist of all QA procedures required by the protocols and examined in this data review.

A. ICP Metals Analysis

Fifteen samples were analyzed for ICP metals (specifically, aluminum, calcium, iron, magnesium, and sodium) by SW-846 Method 6010B. The findings offered in this report for this fraction are based on the items on the following table.

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Holding Times	√			
Sample Condition Upon Receipt	√			
Blank Analysis Results	√			
LCS Recoveries	√			
Detection Limits/Sensitivity	√			
Calibrations	√			
ICP Interference Check Samples	√			
PQL Standard Recoveries	√			
Field Duplicate Precision	√			
Post-Digestion Spike	√			
Serial Dilution Precision	√			
Analytical Sequence	√			
Sample Preparation	√			
Quantitation of Results			√	
A Critical Evaluation of Instrumental Raw Data	√			

Quantitation of Results: All positive results reported at concentrations greater than the method detection limit (MDL) but less than the reporting limit (RL) were qualified as estimated and have been flagged "J" on the data tables.

B. ICP/MS Metals Analysis

Fifteen samples were analyzed for ICP/MS metals (specifically, silver, arsenic, barium, beryllium, cadmium, cobalt, chromium, copper, manganese, molybdenum, nickel, lead, selenium, vanadium, and zinc) by SW-846 Method 6020. The findings offered in this report for this fraction are based on the items on the following table.

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Holding Times	√			
Sample Condition Upon Receipt	√			
Blank Analysis Results			√	
LCS Recoveries	√			
Field Duplicate Precision	√			
Post-Digestion Spike	√			

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Serial Dilution Precision	√			
Internal Standard Recoveries	√			
Detection Limits/Sensitivity	√			
Calibrations	√			
ICP/MS Interference Check Samples	√			
Analytical Sequence	√			
Sample Preparation	√			
Quantitation of Positive Results			√	
A Critical Evaluation of Instrumental Raw Data	√			

Blank Analysis Results: Manganese was observed to be present in the laboratory filter blank associated with the project samples. The reported positive results for manganese in samples P-0668, P-0669, P-0670, P-0672, P-0673, and P-0674 should be considered "not-detected" and have been flagged "UJ" on the data tables. It should be noted that dilution factors and sample volumes were taken into account when evaluating blank contamination.

Quantitation of Positive Results: All positive results reported at concentrations greater than the MDL but less than the RL were qualified as estimated and have been flagged "J" on the data tables.

C. Mercury Analysis

Fifteen samples were analyzed for mercury by SW-846 Method 7471A. The findings offered in this report for this fraction are based on the items on the following table.

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Holding Times	√			
Sample Condition Upon Receipt	√			
Blank Analysis Results			√	
LCS Recoveries	√			
Detection Limits/Sensitivity	√			
Calibrations	√			
Field Duplicate Precision	√			
Analytical Sequence	√			
Sample Preparation	√			
Quantitation of Positive Results			√	
A Critical Evaluation of Instrumental Raw Data	√			

Blank Analysis Results: Mercury was observed to be present in the trip and field blanks associated with the project samples. The reported positive results for mercury in samples P-0668, P-0669, P-0670, P-0671, P-0672, P-0673, P-0674, 000494, 000495, 000496, 000497, 000498, and 000499 should be considered "not-detected" and have been flagged "UJ" on the data tables. It should be noted that dilution factors and sample volumes were taken into account when evaluating blank contamination.

Quantitation of Positive Results: All positive results reported at concentrations greater than the MDL but less than the RL were qualified as estimated and have been flagged "J" on the data tables.

3.0 Qualifier Summary Tables

A. ICP Metals Analysis

Analyte	Report Number	Samples	Validation Qualifier	Reason for Qualification
calcium	G6F190128	000494, 000495, 000496, 000497, 000498, and 000499	J	positive results reported between the MDL and RL
iron	G6F190128	000500 and 000501	J	positive results reported between the MDL and RL
magnesium	G6F190128	P-0668, P-0669, P-0670, P-0671, P-0672, P-0673, P-0674, 000495, and 000496	J	positive results reported between the MDL and RL

B. ICP/MS Metals Analysis

Analyte(s)	Report Number	Sample(s)	Validation Qualifier	Reason for Qualification
manganese	G6F190128	P-0668, P-0669, P-0670, P-0672, P-0673, and P-0674	UJ	blank contamination
silver, cadmium, and vanadium	G6F190128	P-0668, P-0669, P-0670, P-0671, P-0672, P-0673, P-0674, 000494, 000495, 000496, 000497, 000498, and 000499	J	positive results reported between the MDL and RL
beryllium	G6F190128	P-0668, P-0671, P-0672, 000494, 000495, 000496, 000497, 000498, and 000499	J	positive results reported between the MDL and RL
nickel	G6F190128	000494	J	positive results reported between the MDL and RL

Analyte(s)	Report Number	Sample(s)	Validation Qualifier	Reason for Qualification
zinc	G6F190128	P-0668, P-0670, P-0671, P-0672, P-0674, 000494, 000495, 000496, 000497, 000498, and 000499	J	positive results reported between the MDL and RL

C. Mercury Analysis

Analyte	Report Number	Samples	Validation Qualifier	Reason for Qualification
mercury	G6F190128	P-0668, P-0669, P-0670, P-0671, P-0672, P-0673, P-0674, 000494, 000495, 000496, 000497, 000498, and 000499	UJ	blank contamination
mercury	G6F190128	000500 and 000501	J	positive results reported between the MDL and RL

4.0 Overall Assessment

Based on this QA review, several ICP/MS manganese results and all mercury environmental sample results were qualified as "not-detected" due to blank contamination. In addition, several ICP, ICP/MS, and mercury results were qualified as estimated due to positive results reported between the MDL and RL.

5.0 Inorganic Data Qualifiers and Valid Reason Codes

Inorganic Data Qualifiers

U Analyte not detected at the detection limit concentration.

J Reported value is an estimated concentration.

UJ Analyte not detected at an estimated detection limit concentration.
R These data were rejected and were not used for any purposes.

UR The analyte was not detected. The detection limit is unreliable and may be representative of a false negative. These data were rejected and are not usable for any purpose.

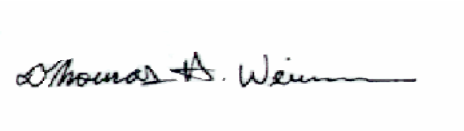
Valid Reason Codes

1 Holding time violation
2 Method blank contamination
3 Surrogate recovery
4 Matrix spike/matrix spike duplicate recovery
5 Matrix spike/matrix spike duplicate precision outside limits

6	Laboratory control sample recovery
7	Field blank contamination
8	Field duplicate precision outside limits
9	Other deficiencies (including cooler temperature)
A	Absence of supporting QC
S	ICV, CCV or column performance check problem
Y	Initial and continuing calibration blank problem
M	Interference check samples problem
O	Post-digestion spike outside of 85-115%
F	MSA correlation coefficient <0.995, or MSA not done
G	Serial dilution problem
K	DFTPP or BFB tuning problem
Q	Initial calibration problem
X	Internal standard recovery problem
V	Second source standard calibration verification problem
L	Low bias
Z	Retention time problem
N	Counting time error (radionuclide chemistry)
W	Detector instability (radionuclide chemistry)
C	Co-elution of compounds
E	Value exceeds linear calibration range
I	Interferences present during analysis
T	Trace level compound, poor quantitation
P	1C/2C precision outside of limits
B	LCS/LCSD precision outside limits
D	Lab Dup/Rep precision outside limits
H	High bias

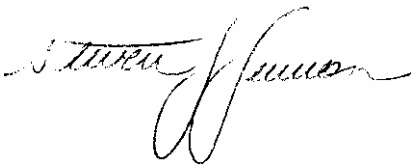
6.0 Signatures

Report prepared by:



Thomas H. Weinmann
Senior Quality Assurance Chemist I

Report reviewed by:



Steven J. Lennon
Quality Assurance Chemist

Report reviewed and approved by:

Rock J. Vitale, CEAC, CPC
Technical Director of Chemistry/
Principal

ENVIRONMENTAL STANDARDS, INC.
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Valley Forge, PA 19482-0810

(610) 935-5577

Date: 8/9/06

7.0 ANALYTICAL RESULTS

			Lab Sample	G6F190128001					G6F190128002					G6F190128003				
			Field Sample	P-0668					P-0669					P-0670				
			Collect Date	6/10/2006					6/10/2006					6/10/2006				
			Type	N					N					N				
			Parent															
Method	CAS Number	Chemical Name	Units	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert
40CFRB	TSP	Total Suspended	G															
40CFRJ	PM-10	Particulate Matte	G	0.0292		0.0001	0.0001	0	0.0257		0.0001	0.0001	0	0.0299		0.0001	0.0001	0
SW6010B	AL	ALUMINUM	UG	328		40.8	240	0	249		40.8	240	0	305		40.8	240	0
	CA	CALCIUM	UG	898	U	898	3000	0	898	U	898	3000	0	898	U	898	3000	0
	FE	IRON	UG	375		14.4	120	0	310		14.4	120	0	563		14.4	120	0
	MG	MAGNESIUM	UG	307	J / T	97.2	600	0	264	J / T	97.2	600	0	306	J / T	97.2	600	0
	NA	SODIUM	UG	2020	U	2020	6000	0	2020	U	2020	6000	0	2020	U	2020	6000	0
SW6020	AG	SILVER	UG	0.027	J / T	0.014	1.2	0	0.048	J / T	0.014	1.2	0	0.044	J / T	0.014	1.2	0
	AS	ARSENIC	UG	1.9	U	1.9	3.6	0	1.9	U	1.9	3.6	0	1.9	U	1.9	3.6	0
	BA	BARIUM	UG	34.8	U	34.8	120	0	34.8	U	34.8	120	0	34.8	U	34.8	120	0
	BE	BERYLLIUM	UG	0.0085	J / T	0.0084	1.2	0	0.0084	U	0.0084	1.2	0	0.0084	U	0.0084	1.2	0
	CD	CADMIUM	UG	0.057	J / T	0.054	1.2	0	0.059	J / T	0.054	1.2	0	0.077	J / T	0.054	1.2	0
	CO	COBALT	UG	3.7	U	3.7	12	0	3.7	U	3.7	12	0	3.7	U	3.7	12	0
	CR	CHROMIUM, TO	UG	10.3	U	10.3	12	0	10.3	U	10.3	12	0	10.3	U	10.3	12	0
	CU	COPPER	UG	17.5		2.9	6	0	18.2		2.9	6	0	45.4		2.9	6	0
	MN	MANGANESE	UG	15.4	UJ / 2	15.4	17.5	0	13.2	UJ / 2	13.2	17.5	0	14.3	UJ / 2	14.3	17.5	0
	MO	MOLYBDENUM	UG	1.1	U	1.1	6	0	1.1	U	1.1	6	0	1.1	U	1.1	6	0
	NI	NICKEL	UG	3.5	U	3.5	6	0	3.5	U	3.5	6	0	3.5	U	3.5	6	0
	PB	LEAD	UG	2.2		0.34	1.2	0	1.8		0.34	1.2	0	2.5		0.34	1.2	0
	SE	SELENIUM	UG	1.7	U	1.7	3.6	0	1.7	U	1.7	3.6	0	1.7	U	1.7	3.6	0
	V	VANADIUM	UG	3.1	J / T	2.9	12	0	2.9	J / T	2.9	12	0	3.1	J / T	2.9	12	0
	ZN	ZINC	UG	7.7	J / T	6.2	24	0	6.2	U	6.2	24	0	7.3	J / T	6.2	24	0
SW7471	HG	MERCURY	UG	0.055	UJ / 7	0.055	0.14	0	0.045	UJ / 7	0.045	0.14	0	0.055	UJ / 7	0.055	0.14	0

			Lab Sample	G6F190128004					G6F190128005					G6F190128006				
			Field Sample	P-0671					P-0672					P-0673				
			Collect Date	6/10/2006					6/10/2006					6/10/2006				
			Type	N					N					N				
			Parent															
Method	CAS Number	Chemical Name	Units	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert
40CFRB	TSP	Total Suspended	G															
40CFRJ	PM-10	Particulate Matte	G	0.036		0.0001	0.0001	0	0.0295		0.0001	0.0001	0	0.0295		0.0001	0.0001	0
SW6010B	AL	ALUMINUM	UG	456		40.8	240	0	353		40.8	240	0	378		40.8	240	0
	CA	CALCIUM	UG	898	U	898	3000	0	898	U	898	3000	0	898	U	898	3000	0
	FE	IRON	UG	558		14.4	120	0	474		14.4	120	0	440		14.4	120	0
	MG	MAGNESIUM	UG	413	J / T	97.2	600	0	317	J / T	97.2	600	0	327	J / T	97.2	600	0
	NA	SODIUM	UG	2020	U	2020	6000	0	2020	U	2020	6000	0	2020	U	2020	6000	0
SW6020	AG	SILVER	UG	0.028	J / T	0.014	1.2	0	0.017	J / T	0.014	1.2	0	0.019	J / T	0.014	1.2	0
	AS	ARSENIC	UG	1.9	U	1.9	3.6	0	1.9	U	1.9	3.6	0	1.9	U	1.9	3.6	0
	BA	BARIUM	UG	34.8	U	34.8	120	0	34.8	U	34.8	120	0	34.8	U	34.8	120	0
	BE	BERYLLIUM	UG	0.01	J / T	0.0084	1.2	0	0.012	J / T	0.0084	1.2	0	0.0084	U	0.0084	1.2	0
	CD	CADMIUM	UG	0.11	J / T	0.054	1.2	0	0.066	J / T	0.054	1.2	0	0.06	J / T	0.054	1.2	0
	CO	COBALT	UG	3.7	U	3.7	12	0	3.7	U	3.7	12	0	3.7	U	3.7	12	0
	CR	CHROMIUM, TO	UG	10.3	U	10.3	12	0	10.3	U	10.3	12	0	10.3	U	10.3	12	0
	CU	COPPER	UG	27		2.9	6	0	20.4		2.9	6	0	18		2.9	6	0
	MN	MANGANESE	UG	19.5		1.9	6	0	14.9	UJ / 2	14.9	17.5	0	16.2	UJ / 2	16.2	17.5	0
	MO	MOLYBDENUM	UG	1.1	U	1.1	6	0	1.1	U	1.1	6	0	1.1	U	1.1	6	0
	NI	NICKEL	UG	3.5	U	3.5	6	0	3.5	U	3.5	6	0	3.5	U	3.5	6	0
	PB	LEAD	UG	2.7		0.34	1.2	0	2.1		0.34	1.2	0	1.9		0.34	1.2	0
	SE	SELENIUM	UG	1.7	U	1.7	3.6	0	1.7	U	1.7	3.6	0	1.7	U	1.7	3.6	0
	V	VANADIUM	UG	3.4	J / T	2.9	12	0	3.2	J / T	2.9	12	0	3.2	J / T	2.9	12	0
	ZN	ZINC	UG	10	J / T	6.2	24	0	6.4	J / T	6.2	24	0	6.2	U	6.2	24	0
SW7471	HG	MERCURY	UG	0.068	UJ / 7	0.068	0.14	0	0.06	UJ / 7	0.06	0.14	0	0.062	UJ / 7	0.062	0.14	0

			Lab Sample	G6F190128007					G6F190128008					G6F190128009				
			Field Sample	P-0674					000494					000495				
			Collect Date	6/10/2006					6/10/2006					6/10/2006				
			Type	FD					N					N				
			Parent	P-0668														
Method	CAS Number	Chemical Name	Units	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert
40CFRB	TSP	Total Suspended	G						0.063		0.0001	0.0001	0	0.0518		0.0001	0.0001	0
40CFRJ	PM-10	Particulate Matte	G	0.0243		0.0001	0.0001	0										
SW6010B	AL	ALUMINUM	UG	310		40.8	240	0	861		40.8	240	0	672		40.8	240	0
	CA	CALCIUM	UG	898	U	898	3000	0	1100	J / T	898	3000	0	902	J / T	898	3000	0
	FE	IRON	UG	370		14.4	120	0	980		14.4	120	0	731		14.4	120	0
	MG	MAGNESIUM	UG	296	J / T	97.2	600	0	618		97.2	600	0	479	J / T	97.2	600	0
	NA	SODIUM	UG	2020	U	2020	6000	0	2020	U	2020	6000	0	2020	U	2020	6000	0
SW6020	AG	SILVER	UG	0.019	J / T	0.014	1.2	0	0.12	J / T	0.014	1.2	0	0.095	J / T	0.014	1.2	0
	AS	ARSENIC	UG	1.9	U	1.9	3.6	0	1.9	U	1.9	3.6	0	1.9	U	1.9	3.6	0
	BA	BARIUM	UG	34.8	U	34.8	120	0	34.8	U	34.8	120	0	34.8	U	34.8	120	0
	BE	BERYLLIUM	UG	0.0084	U	0.0084	1.2	0	0.015	J / T	0.0084	1.2	0	0.02	J / T	0.0084	1.2	0
	CD	CADMIUM	UG	0.081	J / T	0.054	1.2	0	0.12	J / T	0.054	1.2	0	0.094	J / T	0.054	1.2	0
	CO	COBALT	UG	3.7	U	3.7	12	0	3.7	U	3.7	12	0	3.7	U	3.7	12	0
	CR	CHROMIUM, TO	UG	10.3	U	10.3	12	0	10.3	U	10.3	12	0	10.3	U	10.3	12	0
	CU	COPPER	UG	27.6		2.9	6	0	211		2.9	6	0	147		2.9	6	0
	MN	MANGANESE	UG	13.3	UJ / 2	13.3	17.5	0	35.4		1.9	6	0	29.2		1.9	6	0
	MO	MOLYBDENUM	UG	1.1	U	1.1	6	0	1.1	U	1.1	6	0	1.1	U	1.1	6	0
	NI	NICKEL	UG	3.5	U	3.5	6	0	3.7	J / T	3.5	6	0	3.5	U	3.5	6	0
	PB	LEAD	UG	2		0.34	1.2	0	3.1		0.34	1.2	0	2.5		0.34	1.2	0
	SE	SELENIUM	UG	1.7	U	1.7	3.6	0	1.7	U	1.7	3.6	0	1.7	U	1.7	3.6	0
	V	VANADIUM	UG	3	J / T	2.9	12	0	4.3	J / T	2.9	12	0	3.8	J / T	2.9	12	0
	ZN	ZINC	UG	7.4	J / T	6.2	24	0	13.1	J / T	6.2	24	0	8.3	J / T	6.2	24	0
SW7471	HG	MERCURY	UG	0.086	UJ / 7	0.086	0.14	0	0.08	UJ / 7	0.08	0.14	0	0.058	UJ / 7	0.058	0.14	0

			Lab Sample	G6F190128010					G6F190128011					G6F190128012				
			Field Sample	000496					000497					000498				
			Collect Date	6/10/2006					6/10/2006					6/10/2006				
			Type	N					N					N				
			Parent															
Method	CAS Number	Chemical Name	Units	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert
40CFRB	TSP	Total Suspended	G	0.0525		0.0001	0.0001	0	0.0658		0.0001	0.0001	0	0.0836		0.0001	0.0001	0
40CFRJ	PM-10	Particulate Matte	G															
SW6010B	AL	ALUMINUM	UG	648		40.8	240	0	828		40.8	240	0	1050		40.8	240	0
	CA	CALCIUM	UG	997	J / T	898	3000	0	1220	J / T	898	3000	0	1530	J / T	898	3000	0
	FE	IRON	UG	784		14.4	120	0	997		14.4	120	0	1590		14.4	120	0
	MG	MAGNESIUM	UG	504	J / T	97.2	600	0	628		97.2	600	0	729		97.2	600	0
	NA	SODIUM	UG	2020	U	2020	6000	0	2020	U	2020	6000	0	2020	U	2020	6000	0
SW6020	AG	SILVER	UG	0.11	J / T	0.014	1.2	0	0.075	J / T	0.014	1.2	0	0.053	J / T	0.014	1.2	0
	AS	ARSENIC	UG	1.9	U	1.9	3.6	0	1.9	U	1.9	3.6	0	1.9	U	1.9	3.6	0
	BA	BARIUM	UG	34.8	U	34.8	120	0	34.8	U	34.8	120	0	34.8	U	34.8	120	0
	BE	BERYLLIUM	UG	0.033	J / T	0.0084	1.2	0	0.025	J / T	0.0084	1.2	0	0.04	J / T	0.0084	1.2	0
	CD	CADMIUM	UG	0.098	J / T	0.054	1.2	0	0.13	J / T	0.054	1.2	0	0.13	J / T	0.054	1.2	0
	CO	COBALT	UG	3.7	U	3.7	12	0	3.7	U	3.7	12	0	3.7	U	3.7	12	0
	CR	CHROMIUM, TO	UG	10.3	U	10.3	12	0	10.3	U	10.3	12	0	10.3	U	10.3	12	0
	CU	COPPER	UG	214		2.9	6	0	139		2.9	6	0	152		2.9	6	0
	MN	MANGANESE	UG	27		1.9	6	0	34.2		1.9	6	0	34.7		1.9	6	0
	MO	MOLYBDENUM	UG	1.1	U	1.1	6	0	1.1	U	1.1	6	0	1.1	U	1.1	6	0
	NI	NICKEL	UG	3.5	U	3.5	6	0	3.5	U	3.5	6	0	3.5	U	3.5	6	0
	PB	LEAD	UG	2.8		0.34	1.2	0	3.2		0.34	1.2	0	3.2		0.34	1.2	0
	SE	SELENIUM	UG	1.7	U	1.7	3.6	0	1.7	U	1.7	3.6	0	1.7	U	1.7	3.6	0
	V	VANADIUM	UG	3.9	J / T	2.9	12	0	4.5	J / T	2.9	12	0	4.9	J / T	2.9	12	0
	ZN	ZINC	UG	10.6	J / T	6.2	24	0	15.8	J / T	6.2	24	0	13	J / T	6.2	24	0
SW7471	HG	MERCURY	UG	0.073	UJ / 7	0.073	0.14	0	0.081	UJ / 7	0.081	0.14	0	0.084	UJ / 7	0.084	0.14	0

			Lab Sample	G6F190128013					G6F190128014					G6F190128015				
			Field Sample	000499					000500					000501				
			Collect Date	6/10/2006					6/10/2006					6/10/2006				
			Type	N					TB					FB				
			Parent						AM-5-TSP					AM-2-TSP				
Method	CAS Number	Chemical Name	Units	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert
40CFRB	TSP	Total Suspended	G	0.0655		0.0001	0.0001	0	0.0018		0.0001	0.0001	0	0.0001	U	0.0001	0.0001	0
40CFRJ	PM-10	Particulate Matte	G															
SW6010B	AL	ALUMINUM	UG	836		40.8	240	0	40.8	U	40.8	240	0	40.8	U	40.8	240	0
	CA	CALCIUM	UG	1140	J / T	898	3000	0	898	U	898	3000	0	898	U	898	3000	0
	FE	IRON	UG	972		14.4	120	0	21.6	J / T	14.4	120	0	15.9	J / T	14.4	120	0
	MG	MAGNESIUM	UG	605		97.2	600	0	97.2	U	97.2	600	0	97.2	U	97.2	600	0
	NA	SODIUM	UG	2020	U	2020	6000	0	2020	U	2020	6000	0	2020	U	2020	6000	0
SW6020	AG	SILVER	UG	0.041	J / T	0.014	1.2	0	0.014	U	0.014	1.2	0	0.014	U	0.014	1.2	0
	AS	ARSENIC	UG	1.9	U	1.9	3.6	0	1.9	U	1.9	3.6	0	1.9	U	1.9	3.6	0
	BA	BARIUM	UG	34.8	U	34.8	120	0	34.8	U	34.8	120	0	34.8	U	34.8	120	0
	BE	BERYLLIUM	UG	0.036	J / T	0.0084	1.2	0	0.0084	U	0.0084	1.2	0	0.0084	U	0.0084	1.2	0
	CD	CADMIUM	UG	0.098	J / T	0.054	1.2	0	0.054	U	0.054	1.2	0	0.054	U	0.054	1.2	0
	CO	COBALT	UG	3.7	U	3.7	12	0	3.7	U	3.7	12	0	3.7	U	3.7	12	0
	CR	CHROMIUM, TO	UG	10.3	U	10.3	12	0	10.3	U	10.3	12	0	10.3	U	10.3	12	0
	CU	COPPER	UG	72.6		2.9	6	0	2.9	U	2.9	6	0	2.9	U	2.9	6	0
	MN	MANGANESE	UG	35.4		1.9	6	0	1.9	U	1.9	6	0	1.9	U	1.9	6	0
	MO	MOLYBDENUM	UG	1.1	U	1.1	6	0	1.1	U	1.1	6	0	1.1	U	1.1	6	0
	NI	NICKEL	UG	3.5	U	3.5	6	0	3.5	U	3.5	6	0	3.5	U	3.5	6	0
	PB	LEAD	UG	2.8		0.34	1.2	0	0.34	U	0.34	1.2	0	0.34	U	0.34	1.2	0
	SE	SELENIUM	UG	1.7	U	1.7	3.6	0	1.7	U	1.7	3.6	0	1.7	U	1.7	3.6	0
	V	VANADIUM	UG	4.3	J / T	2.9	12	0	2.9	U	2.9	12	0	2.9	U	2.9	12	0
	ZN	ZINC	UG	11.1	J / T	6.2	24	0	6.2	U	6.2	24	0	6.2	U	6.2	24	0
SW7471	HG	MERCURY	UG	0.088	UJ / 7	0.088	0.14	0	0.023	J / T	0.00036	0.12	0	0.028	J / T	0.00036	0.12	0

8.0 SUPPORTING DOCUMENTATION

Inorganic Analyses Support Documentation

Environmental Standards Project Name: ACC-Youngstown
Sample Collection Dates: 6/10/06
Job Number: 45122848
Project Manager: Eric Hauk
Laboratory: STL

Reviewed By: TMW
Approved By:
Completion Date:

Applicable Sample No's.: ☑ Refer to Table 1 in the Quality Assurance Review

Deliverables: CLP ☐
Tier I ☑
Tier II ☐
Limited ☐
Other

Sample No.	Lab. Control No.
66F190128	

The following table indicates criteria which were examined, the identified problems, and support documentation attachments.

	Criteria Examined in Detail					Problems Identified					Support Documentation Attachments				
	ICP or A.A. Metals	Furnace Metals	Cold Vapor Mercury	Cyanide	Other Methods(s) 6020	ICP or A.A. Metals	Furnace Metals	Cold Vapor Mercury	Cyanide	Other Methods(s) 6020	ICP or A.A. Metals	Furnace Metals	Cold Vapor Mercury	Cyanide	Other Methods(s) 6020
Holding Times	✓		✓		✓						✓		✓		✓
Blank Analysis Results	✓		✓		✓			✓		✓	✓		✓		✓
Matrix Spike (Predigestion) Results															
Duplicate Analysis Results ☒ Field ☐ Lab	✓		✓		✓						✓		✓		✓
Quantitation of Results	✓		✓		✓						✓		✓		✓
Detection Limits / Sensitivity	✓		✓		✓						✓		✓		✓
Initial Calibrations	✓		✓		✓						✓		✓		✓
Continuing Calibrations	✓		✓		✓						✓		✓		✓
Laboratory Control Standards (LCS)	✓		✓		✓						✓		✓		✓
ICP Linear Range Analysis															
ICP Interference Checks	✓				✓						✓				✓
ICP Serial Dilutions	✓				✓						✓				✓
ICP Post-Digestion Spike	✓				✓						✓				✓
GFAA Post-Digestion Spikes															
GFAA Duplicate Injections															
ICP Multiple Exposures															
GFAA Standard Additions															
CRDL Standards	✓										✓				
Others: condition on receipt	✓		✓		✓						✓	✓			✓

Comments:

BLANK ANALYSIS RESULTS FOR INORGANIC PARAMETERS

MATRIX (Aq., S)	BLANK TYPE (✓)						BLANK SAMPLE NUMBER	CONTAMINANT	CONCENTRATION (units)	QUALIFICATION LIMIT FOR AQUEOUS SAMPLES (ug/L)	QUALIFICATION LIMIT FOR SOLID SAMPLES (mg/Kg)
	METHOD			TRIP	EQUIPMENT	FIELD					
	ICB	CCB	PREP								
									mg	5x	5x
Aq	✓	✓	✓				various	all < MDL			
			✓				6180523-MB	manganese	3.5	(17.5)	
				✓			6180524-MB	iron	20.3	101.5	
							000500	iron	21.6	(108)	
						✓		mercury	0.023	0.115	
							000501	iron	15.9	79.5	
								mercury	0.028	(0.14)	

Aq. = Aqueous; S = Solid

Notes: _____

EVALAUTION OF INORGANIC DUPLICATE ANALYSIS PRECISION

Units ug	PRECISION OBJECTIVES*	
	Analyte > or = 5 X RL	RPD < or = 40
	Analyte < 5 X RL	Difference < or = RL Times 2

* Enter the project-specific or default acceptance criteria

ANALYTE	P-0668 Analyte Concentration	Qual	RL	P-0674 Analyte Concentration	Qual	RL	Difference	RPD	Notes
aluminum	328		240	310		240	18	NA	IN
iron	375		120	370		120	5	NA	IN
magnesium	307	J	600	296	J	600	11	NA	IN
silver	0.027	J	1.2	0.019	J	1.2	0.008	NA	IN
beryllium	0.0085	J	1.2	0.0084	U	1.2	0.0001	NA	IN
cadmium	0.057	J	1.2	0.081	J	1.2	0.024	NA	IN
copper	17.5		6	27.6		6	10.1	NA	IN
manganese	15.4		6	13.3		6	2.1	NA	IN
lead	2.2		1.2	2		1.2	0.2	NA	IN
vanadium	3.1	J	12	3	J	12	0.1	NA	IN
zinc	7.7	J	24	7.4	J	24	0.3	NA	IN
mercury	0.055	J	0.12	0.086	J	0.12	0.031	NA	IN

NOTES:

Qual) Column to enter J, U, U*, or B

RPD) Relative Percent Difference

RL) Reporting Limit

J) The analyte concentration should be considered estimated.

U) The analyte was not-detected in the sample. The numerical value will be used for comparison purposes.

U* or B) The result was blank qualified. The numerical value will be used for comparison purposes.

NA) The RPD or Difference is not applicable.

1) Both results are > or = 5 X RL and RPD over acceptance limit, flag positive results "J".

2) At least one of the results is < 5 X RL and difference is over acceptance limit, flag positive results "J" and "not-detected" results "UJ".

Comments:

_____

_____

_____

STL Sacramento

CALIBRATION CHECK SUMMARY

Method: 6010 | PE ICP2 | Reported: 07/03/06 10:25:25

Method: 6010 **Instrument: PE ICP2** **Batch: JUL0106AX.csv**

Sample ID	Type	File - Sequence	Analyzed Date	Q
ICV4	ICV	JUL0106AX.csv, 4	07/01/2006 08:46:43	☐
ICB	ICB	JUL0106AX.csv, 5	07/01/2006 08:49:04	☐
ICSA	ICSA	JUL0106AX.csv, 7	07/01/2006 08:56:14	☐
ICSAB_4.0	ICSAB	JUL0106AX.csv, 8	07/01/2006 08:58:45	☐
CCV	CCV	JUL0106AX.csv, 15	07/01/2006 09:25:48	☐
CCB	CCB	JUL0106AX.csv, 16	07/01/2006 09:28:06	☐
CCV	CCV	JUL0106AX.csv, 27	07/01/2006 10:07:27	☐
CCB	CCB	JUL0106AX.csv, 28	07/01/2006 10:09:47	☐
CCV	CCV	JUL0106AX.csv, 33	07/01/2006 10:31:14	☐
CCB	CCB	JUL0106AX.csv, 34	07/01/2006 10:33:31	☐

STL Sacramento

CALIBRATION REPORT

Method: 6010 | PE ICP2 | Reported: 07/03/06 10:25:25

Department: 120 (Metals)

Source: OPTIMA

Sample: **ICV4 (ICV)** Mult: 1.00 Dili: 1.00 Divs: 1.000

Instrument: **PE 4300**
File: JUL0106AX.csv # 4
Acquired: 07/01/2006 08:46:43
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010O
PE ICP2

90-110 %

Units: mg/L

CASN	Analyte Name	Area	Found	True	%R	Q
7440-70-2	Calcium		10.364	10.000	104	☑
7439-95-4	Magnesium		10.684	10.000	107	☑
7440-66-6	Zinc		1.0204	1.0000	102	☑
7429-90-5	Aluminum		10.248	10.000	102	☑
7439-89-6	Iron		10.282	10.000	102	☑
7439-89-6	Iron		10.578	10.000	106	☑
7440-23-5	Sodium		10.137	10.000	101	☑
7440-23-5	Sodium		10.464	10.000	105	☑

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_ Axial		96.879	☑
R7440655	Y_ Radial		97.143	☑
In_Axial	In Axial		94.893	☑
In_Radial	In Radial		97.313	☑
Sc_Axial	Sc Axial		97.579	☑
Sc_Radial	Sc Radial		97.786	☑

Reviewed by: Date:

STL Sacramento

BLANK REPORT

Method: 6010 | PE ICP2 | Reported: 07/03/06 10:25:25

Department: 120 (Metals)

Source: OPTIMA

Sample: ICB | Mult: 1.00 | Dil: 1.00 | Dlvs: 1.000

Instrument: PE 4300
File: JUL0106AX.csv # 5
Acquired: 07/01/2006 08:49:04
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010O
PE ICP2

Units: mg/L

CASN	Analyte Name	Area	Amount	RL	MDL	%RSD	Q
7440-70-2	Calcium		0.00871	0.50	0.0067	0.0025	☑
7439-95-4	Magnesium		0.00824	0.50	0.012	0.0069	☑
7440-66-6	Zinc		0.00027	0.0050	0.0033	0.00039	☑
7429-90-5	Aluminum		0.01041	0.10	0.015	0.0021	☑
7439-89-6	Iron		0.01031	0.050	0.012	0.0026	☑
7439-89-6	Iron		0.01152	0.050	0.012	0.0082	☑
7440-23-5	Sodium		0.04042	0.50	0.0082	0.022	☑
7440-23-5	Sodium		0.16901	0.50	0.0082	0.18	☑

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_ Axial		98.354	☑
R7440655	Y_ Radial		99.023	☑
In_Axial	In Axial		98.377	☑
In_Radial	In Radial		99.601	☑
Sc_Axial	Sc Axial		98.352	☑
Sc_Radial	Sc Radial		99.285	☑

< MDL

Ag MDLs
N/A
see Data Tables
for Air MDLs

Reviewed by: Date:

Sequence No: 6
Sample ID: PQL
Analyst: AWW
Initial Sample Wt:
Dilution:

Autosampler Location: 38
Date Collected: 7/1/2006 8:52:40 AM
Data Type: Reprocessed on 7/1/2006 10:46:27 AM
Initial Sample Vol: 0.0833 mL
Sample Prep Vol: 100 mL

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib Conc.	Units		Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
In Axial	560093.9	98.681	%		0.4674				0.47%
In Radial	26808.2	98.434	%		0.1842				0.19%
Y_ Axial	1260013.8	98.953	%		0.4710				0.48%
Y_ Radial	127052.3	98.444	%		0.3544				0.36%
Sc Axial	1333285.9	98.773	%	T.V.	0.4047				0.41%
Sc Radial	132279.2	98.313	%		0.3804				0.39%
Al_1 396.153 Rf	1225.6	0.10555	mg/L	0.1	0.000122	126.71	mg/L	0.146	0.12%
Al_2 308.215 Rf	341.2	0.09883	mg/L	"	0.001130	118.65	mg/L	1.357	1.14%
Ca 315.887 Rf	1734.4	0.10496	mg/L	"	0.001272	126.01	mg/L	1.526	1.21%
Fe_1 273.955†	1489.6	0.03175	mg/L	0.03	0.001497	38.115	mg/L	1.7967	4.71%
Fe_2 238.863 Rf	30.2	0.03039	mg/L	"	0.009207	36.481	mg/L	11.0529	30.30%
Mg 279.077 Rf	213.6	0.10915	mg/L	0.1	0.003720	131.03	mg/L	4.466	3.41%
Na_1 589.592 Rf	2556.2	0.24953	mg/L	0.25	0.002806	299.55	mg/L	3.368	1.12%
Na_2 330.237 Rf	70.1	1.0706	mg/L		0.14893	1285.3	mg/L	178.79	13.91%
Zn 206.200†	177.5	0.00570	mg/L		0.000068	6.8459	mg/L	0.08186	1.20%

50-150% OK

STL Sacramento

CALIBRATION REPORT

Method: 6010 PE ICP2 Reported: 07/03/06 10:25:25

Department: 120 (Metals)

Source: OPTIMA

Sample: **ICSA** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **PE 4300**
File: JUL0106AX.csv # 7
Acquired: 07/01/2006 08:56:14
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010C
PE ICP2

Units: mg/L

CASN	Analyte Name	Area	Found	True	%R	Q
7440-70-2	Calcium		497.57	500.00	99.5	☑
7439-95-4	Magnesium		496.78	500.00	99.4	☑
7440-66-6	Zinc		0.01076		*	
7429-90-5	Aluminum		522.69	500.00	105	☑
7439-89-6	Iron		188.80	200.00	94.4	☑
7439-89-6	Iron		196.05	200.00	98.0	☑
7440-23-5	Sodium		0.00575		*	☑
7440-23-5	Sodium		-2.1785		*	☑

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_Axial		83.588	☑
R7440655	Y_Radial		87.207	☑
In_Axial	In Axial		76.743	☑
In_Radial	In Radial		83.950	☑
Sc_Axial	Sc Axial		83.857	☑
Sc_Radial	Sc Radial		86.271	☑

Reviewed by: Date:

STL Sacramento

CALIBRATION REPORT

Method: 6010 PE ICP2 Reported: 07/03/06 10:25:26

Department: 120 (Metals)

Source: OPTIMA

Sample: **ICSAB_4.0** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **PE 4300**
File: JUL0106AX.csv # 8
Acquired: 07/01/2006 08:58:46
Calibrated: 07/01/2006 08:36:25

Channel 268
Method 6010O
PE ICP2

Units: mg/L

CASN	Analyte Name	Area	Found	True	%R	Q
7440-70-2	Calcium		473.56	500.00	94.7	☑
7439-95-4	Magnesium		500.17	500.00	100	☑
7440-66-6	Zinc		0.95913	1.0000	95.9	☑
7429-90-5	Aluminum		500.46	500.00	100	☑
7439-89-6	Iron		188.80	200.00	94.4	☑
7439-89-6	Iron		197.72	200.00	98.9	☑
7440-23-5	Sodium		0.05692		*	
7440-23-5	Sodium		-0.00187		*	

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_ Axial		83.333	☑
R7440655	Y_ Radial		90.298	☑
In_Axial	In Axial		77.922	☑
In_Radial	In Radial		86.719	☑
Sc_Axial	Sc Axial		83.605	☑
Sc_Radial	Sc Radial		89.550	☑

Reviewed by: Date:

STL Sacramento

CALIBRATION REPORT

Method: 6010 PE ICP2 Reported: 07/03/06 10:25:25

Department: 120 (Metals)

Sample: **CCV (CCV)** Source: OPTIMA

Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: PE 4300
File: JUL0106AX.csv # 15
Acquired: 07/01/2006 09:25:48
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010O
PE ICP2

Units: mg/L

CASN	Analyte Name	Area	Found	True	%R	Q
7440-70-2	Calcium		24.670	25.000	98.7	☑
7439-95-4	Magnesium		26.157	25.000	105	☑
7440-66-6	Zinc		2.5322	2.5000	101	☑
7429-90-5	Aluminum		24.791	25.000	99.2	☑
7439-89-6	Iron		25.307	25.000	101	☑
7439-89-6	Iron		26.040	25.000	104	☑
7440-23-5	Sodium		23.980	25.000	95.9	☑
7440-23-5	Sodium		24.997	25.000	99.9	☑

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_ Axial		94.150	☑
R7440655	Y_ Radial		95.727	☑
In_Axial	In Axial		91.949	☑
In_Radial	In Radial		96.050	☑
Sc_Axial	Sc Axial		94.961	☑
Sc_Radial	Sc Radial		96.362	☑

Reviewed by: Date:

STL Sacramento

BLANK REPORT

Method: 6010 | PE ICP2 | Reported: 07/03/06 10:25:25

Department: 120 (Metals)

Source: OPTIMA

Sample: **CCB**

Mult: 1.00 Diff: 1.00 Divs: 1.000

Instrument: PE 4300
File: JUL0106AX.csv # 16
Acquired: 07/01/2006 09:28:06
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010C
PE ICP2

Units: mg/L

CASN	Analyte Name	Area	Amount	RL	MDL	%RSD	Q
7440-70-2	Calcium		0.00088	0.50	0.0067	0.0013	☑
7439-95-4	Magnesium		0.01111	0.50	0.012	0.0059	☑
7440-66-6	Zinc		0.00019	0.0050	0.0033	0.000098	☑
7429-90-5	Aluminum		-0.00087	0.10	0.015	0.00041	☑
7439-89-6	Iron	< MDL	0.00187	0.050	0.012	0.00011	☑
7439-89-6	Iron		0.00324	0.050	0.012	0.0020	☑
7440-23-5	Sodium		-0.03376	0.50	0.0082	0.0025	☑
7440-23-5	Sodium		0.42597	0.50	0.0082	0.21	☐

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_Axial		99.056	☑
R7440655	Y_Radial		97.661	☑
In_Axial	In Axial		98.730	☑
In_Radial	In Radial		97.378	☑
Sc_Axial	Sc Axial		99.107	☑
Sc_Radial	Sc Radial		97.455	☑

Reviewed by: Date:

STL Sacramento

CALIBRATION REPORT

Method: 6010 PE ICP2 Reported: 07/03/06 10:25:25

Department: 120 (Metals)

Source: OPTIMA

Sample: **CCV (CCV)** Mult: 1.00 Dil: 1.00 Divs: 1.000

Instrument: PE 4300
File: JUL0106AX.csv # 27
Acquired: 07/01/2006 10:07:27
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010O
PE ICP2

Units: mg/L

CASN	Analyte Name	Area	Found	True	%R	Q
7440-70-2	Calcium		25.118	25.000	100	☑
7439-95-4	Magnesium		26.020	25.000	104	☑
7440-66-6	Zinc		2.5411	2.5000	102	☑
7429-90-5	Aluminum		25.170	25.000	101	☑
7439-89-6	Iron		25.310	25.000	101	☑
7439-89-6	Iron		25.929	25.000	104	☑
7440-23-5	Sodium		24.194	25.000	96.8	☑
7440-23-5	Sodium		25.525	25.000	102	☑

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_ Axial		95.524	☑
R7440655	Y_ Radial		95.468	☑
In_Axial	In Axial		93.346	☑
In_Radial	In Radial		95.631	☑
Sc_Axial	Sc Axial		96.296	☑
Sc_Radial	Sc Radial		95.874	☑

Reviewed by: Date:

STL Sacramento

BLANK REPORT

Method: 6010 | PE ICP2 | Reported: 07/06/06 10:25:25

Department: 120 (Metals)

Source: OPTIMA

Sample: **CCB** | Mult: 1.00 | Diff: 1.00 | Divs: 1.000

Instrument: **PE 4300**
File: JUL0106AX.csv # 28
Acquired: 07/01/2006 10:09:47
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010O
PE ICP2

Units: mg/L

CASN	Analyte Name	Area	Amount	RL	MDL	%RSD	Q
7440-70-2	Calcium		-0.00073	0.50	0.0067	0.00056	☑
7439-95-4	Magnesium		0.00693	0.50	0.012	0.000062	☑
7440-66-6	Zinc		0.00004	0.0050	0.0033	0.00013	☑
7429-90-5	Aluminum	← MDL	-0.00148	0.10	0.015	0.0029	☑
7439-89-6	Iron		0.00079	0.050	0.012	0.000019	☑
7439-89-6	Iron		0.00328	0.050	0.012	0.0019	☑
7440-23-5	Sodium		-0.04258	0.50	0.0082	0.0041	☑
7440-23-5	Sodium		0.09745	0.50	0.0082	0.28	☑

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_Axial		100.07	☑
R7440655	Y_Radial		99.525	☑
In_Axial	In Axial		100.04	☑
In_Radial	In Radial		100.13	☑
Sc_Axial	Sc Axial		100.14	☑
Sc_Radial	Sc Radial		99.616	☑

Reviewed by: Date:

STL Sacramento

CALIBRATION REPORT

Method: 6010 | PE ICP2 | Reported: 07/03/06 10:25:25

Department: 120 (Metals)

Source: OPTIMA

Sample: **CCV (CCV)** Mult: 1.00 Dil: 1.00 Divs: 1.000

Instrument: **PE 4300**
File: JUL0106AX.csv # 33
Acquired: 07/01/2006 10:31:14
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010C
PE ICP2

Units: mg/L

CASN	Analyte Name	Area	Found	True	%R	Q
7440-70-2	Calcium		24.641	25.000	98.2	☑
7439-95-4	Magnesium		26.121	25.000	104	☑
7440-66-6	Zinc		2.5309	2.5000	101	☑
7429-90-5	Aluminum		24.703	25.000	98.8	☑
7439-89-6	Iron		25.252	25.000	101	☑
7439-89-6	Iron		26.081	25.000	104	☑
7440-23-5	Sodium		23.584	25.000	94.3	☑
7440-23-5	Sodium		25.884	25.000	103	☑

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_Axial		82.725	☑
R7440655	Y_Radial		96.262	☑
In_Axial	In Axial		90.341	☑
In_Radial	In Radial		96.163	☑
Sc_Axial	Sc Axial		93.419	☑
Sc_Radial	Sc Radial		96.569	☑

Reviewed by: Date:

STL Sacramento

BLANK REPORT

Method: 6010 | PE ICP2 | Reported: 07/03/06 10:25:25

Department: 120 (Metals)

Source: OPTIMA

Sample: **CCB** | Mult: 1.00 | Diff: 1.00 | Divs: 1.000

Instrument: **PE 4300**
File: JUL0106AX.csv # 34
Acquired: 07/01/2006 10:33:31
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010O
PE ICP2

Units: mg/L

CASN	Analyte Name	Area	Amount	RL	MDL	%RSD	Q
7440-70-2	Calcium		0.00026	0.50	0.0067	0.00041	☑
7439-95-4	Magnesium		0.00371	0.50	0.012	0.0011	☑
7440-66-6	Zinc		0.00022	0.0050	0.0033	0.000075	☑
7429-90-5	Aluminum	< MDL	0.00164	0.10	0.015	0.0053	☑
7439-89-6	Iron		0.00135	0.050	0.012	0.00020	☑
7439-89-6	Iron		-0.00274	0.050	0.012	0.0045	☑
7440-23-5	Sodium		-0.05313	0.50	0.0082	0.0012	☑
7440-23-5	Sodium		0.29582	0.50	0.0082	0.25	☑

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_ Axial		100.01	☑
R7440655	Y_ Radial		99.821	☑
In_Axial	In Axial		99.563	☑
In_Radial	In Radial		100.52	☑
Sc_Axial	Sc Axial		100.06	☑
Sc_Radial	Sc Radial		99.878	☑

Reviewed by: Date:

G6F190128

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RUN SUMMARY

Method: 6010 | PE ICP2 (P05) | Reported: 07/01/06 12:09:23

File ID: JUL0106AX.csv

Analyst: WONGA

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
1	Calib_Blank_				1.0	07/01/06 08:38		
2	Calib_Std_1				1.0	07/01/06 08:42		
3	Calib_Std_2				1.0	07/01/06 08:44		
4	ICV4				1.0	07/01/06 08:46		
5	ICB				1.0	07/01/06 08:49		
6	PQL				1.0	07/01/06 08:52		
7	ICSA				1.0	07/01/06 08:56		
8	ICSAB_4.0				1.0	07/01/06 08:58		
9	H8F17B	G6F290000	6180328	2A	1.0	07/01/06 09:05		
10	H8F17C	G6F290000	6180328	2A	1.0	07/01/06 09:08		
11	H8F17L	G6F290000	6180328	2A	1.0	07/01/06 09:11		
12	H7N1L	G6F190128-1	6180328	2A	1.0	07/01/06 09:15		
13	H7N1LP5	G6F190128	6180328		5.0	07/01/06 09:18		
14	H7N1LZ	G6F190128-1	6180328		1.0	07/01/06 09:22		
15	CCV				1.0	07/01/06 09:25		
16	CCB				1.0	07/01/06 09:28		
17	H7N1M	G6F190128-2	6180328	2A	1.0	07/01/06 09:31		
18	H7N1N	G6F190128-3	6180328	2A	1.0	07/01/06 09:35		
19	H7N1P	G6F190128-4	6180328	2A	1.0	07/01/06 09:38		
20	H7N1T	G6F190128-5	6180328	2A	1.0	07/01/06 09:42		
21	H7N1W	G6F190128-6	6180328	2A	1.0	07/01/06 09:46		
22	H7N10	G6F190128-7	6180328	2A	1.0	07/01/06 09:49		
23	H7N11	G6F190128-8	6180328	2A	1.0	07/01/06 09:53		
24	H7N14	G6F190128-9	6180328	2A	1.0	07/01/06 09:56		
25	H7N16	G6F190128-10	6180328	2A	1.0	07/01/06 10:00		
26	H7N17	G6F190128-11	6180328	2A	1.0	07/01/06 10:03		
27	CCV				1.0	07/01/06 10:07		
28	CCB				1.0	07/01/06 10:09		
29	H7N2A	G6F190128-13	6180328	2A	1.0	07/01/06 10:13		
30	H7N2E	G6F190128-14	6180328	2A	1.0	07/01/06 10:16		
31	H7N2F	G6F190128-15	6180328	2A	1.0	07/01/06 10:20		
32	H7N19	G6F190128-12	6180328	2A	1.0	07/01/06 10:27		
33	CCV				1.0	07/01/06 10:31		
34	CCB				1.0	07/01/06 10:33		

STL Sacramento

INTERNAL STANDARD SUMMARY

Method: 6010 () | PE ICP2 (P05) | Reported: 07/01/06 12:09:23

File ID: JUL0106AX.csv

Analyst: WONGA

#	Sample ID	Analyzed Date	In Axial	In Radial	Sc Axial	Sc Radial	Y_ Axial	Y_ Radial	Q
1	Calib_Blank_	07/01/06 08:38	0.0	0.0	0.0	0.0	0.0	0.0	☑
2	Calib Std 1	07/01/06 08:42	0.0	0.0	0.0	0.0	0.0	0.0	☑
3	Calib Std 2	07/01/06 08:44	0.0	0.0	0.0	0.0	0.0	0.0	☑
4	ICV4	07/01/06 08:46	94.9	97.3	97.6	97.8	96.9	97.1	☑
5	ICB	07/01/06 08:49	98.4	99.6	98.4	99.3	98.4	99.0	☑
6	PQL	07/01/06 08:52	98.7	98.4	98.8	98.3	99.0	98.4	☑
7	ICSA	07/01/06 08:56	76.7	84.0	83.9	86.3	83.6	87.2	☑
8	ICSAB_4.0	07/01/06 08:58	77.9	86.7	83.6	89.6	83.3	90.3	☑
9	H8F17B	07/01/06 09:05	100.4	99.2	100.7	99.2	100.7	99.4	☑
10	H8F17C	07/01/06 09:08	92.8	98.2	95.3	95.5	94.4	94.6	☑
11	H8F17L	07/01/06 09:11	92.0	97.6	95.9	98.0	95.1	97.1	☑
12	H7N1L	07/01/06 09:15	101.4	100.6	101.6	100.6	101.6	100.8	☑
13	H7N1LP5	07/01/06 09:18	99.3	99.6	99.5	99.2	99.5	99.1	☑
14	H7N1LZ	07/01/06 09:22	92.8	98.6	94.4	97.3	93.6	96.3	☑
15	CCV	07/01/06 09:25	91.9	96.1	95.0	96.4	94.1	95.7	☑
16	CCB	07/01/06 09:28	98.7	97.4	99.1	97.5	99.1	97.7	☑
17	H7N1M	07/01/06 09:31	99.4	102.2	99.5	101.4	99.6	101.4	☑
18	H7N1N	07/01/06 09:35	100.3	101.3	100.4	101.0	100.5	101.0	☑
19	H7N1P	07/01/06 09:38	100.4	101.4	100.8	101.0	100.7	101.1	☑
20	H7N1T	07/01/06 09:42	101.9	102.3	102.1	102.0	102.1	102.2	☑
21	H7N1W	07/01/06 09:46	101.0	102.8	101.2	102.3	101.2	102.2	☑
22	H7N10	07/01/06 09:49	100.7	102.4	100.7	101.9	100.8	102.1	☑
23	H7N11	07/01/06 09:53	100.9	101.3	100.8	100.5	100.7	100.7	☑
24	H7N14	07/01/06 09:56	101.1	99.6	101.4	99.4	101.3	99.6	☑
25	H7N16	07/01/06 10:00	101.8	102.6	102.1	101.9	102.0	102.0	☑
26	H7N17	07/01/06 10:03	99.0	103.8	99.0	103.2	99.0	103.2	☑
27	CCV	07/01/06 10:07	93.3	95.6	96.3	95.9	95.5	95.5	☑
28	CCB	07/01/06 10:09	100.0	100.1	100.1	99.6	100.1	99.5	☑
29	H7N2A	07/01/06 10:13	101.3	102.5	101.4	101.7	101.4	101.9	☑
30	H7N2E	07/01/06 10:16	100.2	100.3	100.2	99.6	100.4	100.0	☑
31	H7N2F	07/01/06 10:20	101.2	102.6	101.3	101.7	101.4	102.0	☑
32	H7N19	07/01/06 10:27	101.6	103.8	101.3	102.7	101.2	102.7	☑
33	CCV	07/01/06 10:31	90.3	96.2	93.4	96.6	92.7	96.3	☑
34	CCB	07/01/06 10:33	99.6	100.5	100.1	99.9	100.0	99.8	☑

STL Sacramento

CALIBRATION CHECK SUMMARY

Method: 6020 (SOP: SAC-MT-001) M01 Reported: 07/07/06 16:52:30

Method: 6020 **Instrument: M01** **Batch: 060707A1**

Sample ID	Type	File - Sequence	Analyzed Date	Q
ICV	ICV	060707A1, 5	07/07/2006 11:20:01	☐
ICB	ICB	060707A1, 6	07/07/2006 11:24:09	☐
ICSA	ICSA	060707A1, 7	07/07/2006 11:28:17	☐
ICSAB	ICSAB	060707A1, 8	07/07/2006 11:32:22	☐
CCV 1	CCV	060707A1, 10	07/07/2006 11:54:10	☐
CCB 1	CCB	060707A1, 11	07/07/2006 11:58:18	☐
CCV 2	CCV	060707A1, 12	07/07/2006 12:02:27	☐
CCB 2	CCB	060707A1, 13	07/07/2006 12:06:35	☐
CCV 3	CCV	060707A1, 24	07/07/2006 12:51:37	☐
CCB 3	CCB	060707A1, 25	07/07/2006 12:55:45	☐
CCV 4	CCV	060707A1, 26	07/07/2006 12:59:53	☐
CCB 4	CCB	060707A1, 27	07/07/2006 13:04:02	☐
CCV 5	CCV	060707A1, 38	07/07/2006 13:49:36	☐
CCB 5	CCB	060707A1, 39	07/07/2006 13:53:45	☐

Method: 6020 (SOP: SAC-MT-001) M01 Reported: 07/07/06 16:52:30

Department: 120 (Metals) Source: MetEdit

Sample: **ICV (ICV)** Mult: **1.00** Dilt: **1.00** Divs: **1.000**

Instrument: **ICPMS M01**
File: 060707A1 # 5
Acquired: 07/07/2006 11:20:01
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

90-110 %

Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	32849	82.401	80.000	103	
7440-62-2	Vanadium	51	987564	81.193	80.000	101	
7440-47-3	Chromium	52	935541	83.218	80.000	104	
7439-96-5	Manganese	55	1403750	83.417	80.000	104	
7440-48-4	Cobalt	59	1034475	83.826	80.000	105	
7440-02-0	Nickel	60	218324	83.886	80.000	105	
7440-50-8	Copper	65	212941	84.086	80.000	105	
7440-66-6	Zinc	68	82569	84.158	80.000	105	
7440-38-2	Arsenic	75	204569	81.342	80.000	102	
7782-49-2	Selenium	82	18709	82.352	80.000	103	
7439-98-7	Molybdenum	97	151008	82.076	80.000	103	
7440-22-4	Silver	107	380135	41.915	40.000	105	
7440-43-9	Cadmium	111	152813	82.294	80.000	103	
7440-39-3	Barium	135	131045	81.924	80.000	102	
7439-92-1	Lead	208	1762483	83.365	80.000	104	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	531862		☑
7440-56-4	Germanium	72	1066933		☑
7440-74-6	Indium	115	891895		☑
7440-30-4	Thulium	169	635233		☑

Reviewed by: Date:

STL Sacramento

BLANK REPORT

Method: 6020 (SOP: SAC-MT-001) | M01 | Reported: 07/07/06 16:52:30

Department: 120 (Metals)

Source: MetEdit

Sample: **ICB**

Mult: **1.00** Diff: **1.00** Divs: **1.000**

Instrument: **ICPMS M01**
File: 060707A1 # 6
Acquired: 07/07/2006 11:24:09
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount		RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	4	-0.00209		1.0	0.078	0.0	
7440-62-2	Vanadium	51	-21601	0.22744		10.0	3.1	0.0	
7440-47-3	Chromium	52	31785	-0.06877		2.0	0.92	0.0	
7439-96-5	Manganese	55	2179	-0.00371		1.0	0.083	0.0	
7440-48-4	Cobalt	59	105	0.00163		1.0	0.057	0.0	
7440-02-0	Nickel	60	159	-0.00860		2.0	0.098	0.0	
7440-50-8	Copper	65	248	-0.01396	< MDL				
7440-66-6	Zinc	66	1736	-0.55957		5.0	1.0	0.0	
7440-38-2	Arsenic	75	15407	-0.27724		2.0	0.50	0.0	
7782-49-2	Selenium	82	1138	0.20905		2.0	1.7	0.0	
7439-98-7	Molybdenum	97	256	0.11509					
7440-22-4	Silver	107	105	0.00771		1.0	0.030	0.0	
7440-43-9	Cadmium	111	10	0.00223		1.0	0.074	0.0	
7440-39-3	Barium	135	171	0.00658		1.0	0.98	0.0	
7439-92-1	Lead	208	764	-0.00538		1.0	0.066	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	537662		☑
7440-56-4	Germanium	72	1077467		☑
7440-74-6	Indium	115	902246		☑
7440-30-4	Thulium	169	635179		☑

Ag MDLs N/A

see Data Tables for Air MDLs

Reviewed by: Date:

STL Sacramento

CALIBRATION REPORT

Method: 6020 (SOP: SAC-MT-001) M01 Reported: 07/07/06 16:52:30

Department: 120 (Metals) Source: MetEdit

Sample: **ICSA** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M01**
File: 060707A1 # 7
Acquired: 07/07/2006 11:28:17
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	13	0.03344		*	☑
7440-62-2	Vanadium	51	-22566	-0.26560		*	☑
7440-47-3	Chromium	52	49975	2.5838		*	
7439-96-5	Manganese	55	33207	2.2803		*	
7440-48-4	Cobalt	59	18113	1.7846		*	
7440-02-0	Nickel	60	6136	2.8114		*	
7440-50-8	Copper	65	1	-0.11073		*	
7440-66-6	Zinc	66	3185	1.7007		*	☑
7440-38-2	Arsenic	75	14169	0.60125		*	☑
7782-49-2	Selenium	82	1006	0.68226		*	☑
7439-98-7	Molybdenum	97	3478213	2164.6	2000.0	108	☐
7440-22-4	Silver	107	1958	0.23789		*	☑
7440-43-9	Cadmium	111	838	0.50114		*	☑
7440-39-3	Barium	135	1318	0.82593		*	☑
7439-92-1	Lead	208	16574	0.95544		*	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	389824		☑
7440-56-4	Germanium	72	874037		☑
7440-74-6	Indium	115	797002		☑
7440-30-4	Thulium	169	493227		☑

Mo is ND in all samples

No impact

Reviewed by: Date:

STL Sacramento

CALIBRATION REPORT

Method: 6020 (SOP: SAC-MT-001) M01 Reported: 07/07/06 16:52:30

Department: 120 (Metals)

Source: MetEdit

Sample: **ICSAB** Mult: 1.00 Diff: 1.00 Divs: 1.000

Instrument: **ICPMS M01**
File: 060707A1 # 8
Acquired: 07/07/2006 11:32:22
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	27826	100.88	100.00	101	☑
7440-62-2	Vanadium	51	1017502	103.21	100.00	103	☑
7440-47-3	Chromium	52	944788	105.02	100.00	105	☑
7439-96-5	Manganese	55	1404961	103.62	100.00	104	☑
7440-48-4	Cobalt	59	1051462	105.70	100.00	106	☑
7440-02-0	Nickel	60	214574	102.31	100.00	102	☑
7440-50-8	Copper	65	193461	94.807	100.00	94.8	☑
7440-66-6	Zinc	68	75319	95.439	100.00	95.4	☑
7440-38-2	Arsenic	75	209366	105.13	100.00	105	☑
7782-49-2	Selenium	82	21259	118.18	100.00	118	☑
7439-98-7	Molybdenum	97	3647628	2307.3	2100.0	110	☑
7440-22-4	Silver	107	377632	46.568	50.000	93.1	☑
7440-43-9	Cadmium	111	163786	98.568	100.00	98.6	☑
7440-39-3	Barium	135	146806	102.67	100.00	103	☑
7439-92-1	Lead	208	1675201	101.79	100.00	102	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	357843		☑
7440-56-4	Germanium	72	859955		☑
7440-74-6	Indium	115	797418		☑
7440-30-4	Thulium	169	492986		☑

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STL Sacramento

CALIBRATION REPORT

Method: 6020 (SOP: SAC-MT-001) M01 Reported: 07/07/06 16:52:30

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 1 (CCV)** Mult: **1.00** Dilf: **1.00** Dlvs: **1.000**

Instrument: **ICPMS M01**
File: 060707A1 # 10
Acquired: 07/07/2006 11:54:10
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	38937	101.84	100.00	102	
7440-62-2	Vanadium	51	1246060	98.678	100.00	98.7	
7440-47-3	Chromium	52	1148755	99.445	100.00	99.4	
7439-96-5	Manganese	55	1731197	99.597	100.00	99.6	
7440-48-4	Cobalt	59	1269709	101.12	100.00	101	
7440-02-0	Nickel	60	273243	101.62	100.00	102	
7440-50-8	Copper	65	264421	101.06	100.00	101	
7440-66-6	Zinc	68	100725	99.653	100.00	99.7	
7440-38-2	Arsenic	75	255171	99.613	100.00	99.6	
7782-49-2	Selenium	82	23142	99.592	100.00	99.6	
7439-98-7	Molybdenum	97	401808	198.24	200.00	99.1	
7440-22-4	Silver	107	465052	49.670	50.000	99.3	
7440-43-9	Cadmium	111	190371	99.248	100.00	99.2	
7440-39-3	Barium	135	163013	98.726	100.00	98.7	
7439-92-1	Lead	208	2132487	99.682	100.00	99.7	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	509869		☑
7440-56-4	Germanium	72	1102491		☑
7440-74-6	Indium	115	920746		☑
7440-30-4	Thulium	169	640762		☑

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BLANK REPORT

Method: 6020 (SOP: SAC-MT-001) | M01 | Reported: 07/07/06 16:52:30

Department: 120 (Metals)

Source: MetEdit

Sample: **CCB 1** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M01**
File: 060707A1 # 11
Acquired: 07/07/2006 11:58:18
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	3	-0.00227	1.0	0.078	0.0	
7440-62-2	Vanadium	51	-21618	0.26831	10.0	3.1	0.0	
7440-47-3	Chromium	52	32698	-0.08682	2.0	0.92	0.0	
7439-96-5	Manganese	55	2257	-0.00388	1.0	0.083	0.0	
7440-48-4	Cobalt	59	116	0.00223	1.0	0.057	0.0	
7440-02-0	Nickel	60	154	-0.01238	2.0	0.098	0.0	
7440-50-8	Copper	65	269	-0.00945				
7440-66-6	Zinc	68	1588	-0.78136	5.0	1.0	0.0	
7440-38-2	Arsenic	75	16689	0.00669	2.0	0.50	0.0	
7782-49-2	Selenium	82	1161	0.12459	2.0	1.7	0.0	
7439-98-7	Molybdenum	97	564	0.26018				
7440-22-4	Silver	107	97	0.00645	1.0	0.030	0.0	
7440-43-9	Cadmium	111	17	0.00549	1.0	0.074	0.0	
7440-39-3	Barium	135	176	0.00740	1.0	0.96	0.0	
7439-92-1	Lead	208	682	-0.01003	1.0	0.068	0.0	

< MDL

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	500311		☑
7440-56-4	Germanium	72	1117034		☑
7440-74-6	Indium	115	935658		☑
7440-30-4	Thulium	169	651762		☑

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CALIBRATION REPORT

Method: 6020 (SOP: SAC-MT-001) M01 Reported: 07/07/06 16:52:30

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 2 (CCV)** Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: **ICPMS M01**
File: 060707A1 # 12
Acquired: 07/07/2006 12:02:27
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	38687	101.45	100.00	101	
7440-62-2	Vanadium	51	1243153	99.174	100.00	99.2	
7440-47-3	Chromium	52	1144168	99.800	100.00	99.8	
7439-96-5	Manganese	55	1739512	100.81	100.00	101	
7440-48-4	Cobalt	59	1283613	101.41	100.00	101	
7440-02-0	Nickel	60	273281	102.40	100.00	102	
7440-50-8	Copper	65	263894	101.56	100.00	102	
7440-66-6	Zinc	68	100549	100.25	100.00	100	
7440-38-2	Arsenic	75	253792	99.829	100.00	99.8	
7782-49-2	Selenium	82	23139	100.36	100.00	100	
7439-98-7	Molybdenum	97	399441	198.55	200.00	99.3	
7440-22-4	Silver	107	462360	49.751	50.000	99.5	
7440-43-9	Cadmium	111	189953	99.762	100.00	99.8	
7440-39-3	Barium	135	161832	98.748	100.00	98.7	
7439-92-1	Lead	208	2134331	100.19	100.00	100	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	508906		☒
7440-56-4	Germanium	72	1094244		☒
7440-74-6	Indium	115	913844		☒
7440-30-4	Thulium	169	638032		☒

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Method: 6020 (SOP: SAC-MT-001) | M01 | Reported: 07/07/06 16:52:30

Department: 120 (Metals)

Source: MetEdit

Sample: **CCB 2** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M01**
File: 060707A1 # 13
Acquired: 07/07/2006 12:06:35
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount		RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	3	-0.00249		1.0	0.078	0.0	
7440-62-2	Vanadium	51	-27762	-0.16116		10.0	3.1	0.0	
7440-47-3	Chromium	52	33020	-0.05895		2.0	0.92	0.0	
7439-96-5	Manganese	55	2359	0.00190		1.0	0.063	0.0	
7440-48-4	Cobalt	59	119	0.00244		1.0	0.057	0.0	
7440-02-0	Nickel	60	170	-0.00672		2.0	0.098	0.0	
7440-50-8	Copper	65	263	-0.01188	< MDL				
7440-66-6	Zinc	68	1664	-0.70614		5.0	1.0	0.0	
7440-38-2	Arsenic	75	18645	-0.00490		2.0	0.50	0.0	
7782-49-2	Selenium	82	1144	0.04319		2.0	1.7	0.0	
7439-98-7	Molybdenum	97	556	0.25641					
7440-22-4	Silver	107	124	0.00931		1.0	0.030	0.0	
7440-43-9	Cadmium	111	9	0.00143		1.0	0.074	0.0	
7440-39-3	Barium	135	175	0.00641		1.0	0.96	0.0	
7439-92-1	Lead	208	681	-0.01019		1.0	0.066	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	510868		☑
7440-56-4	Germanium	72	1117636		☑
7440-74-6	Indium	115	935842		☑
7440-30-4	Thulium	169	854031		☑

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CALIBRATION REPORT

Method: 6020 (SOP: SAC-MT-001) M01 Reported: 07/07/06 16:52:30

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 3 (CCV)** Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: **ICPMS M01** Channel 261
File: 060707A1 # 24 Method 6020_
Acquired: 07/07/2006 12:51:37 M01
Calibrated: 07/07/2006 11:11:41 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	39538	101.17	100.00	101	
7440-62-2	Vanadium	51	1226648	96.519	100.00	96.5	
7440-47-3	Chromium	52	1128269	99.050	100.00	99.1	
7439-96-5	Manganese	55	1715679	100.09	100.00	100	
7440-48-4	Cobalt	59	1261052	100.28	100.00	100	
7440-02-0	Nickel	60	266281	100.44	100.00	100	
7440-50-8	Copper	65	258190	100.09	100.00	100	
7440-66-6	Zinc	68	100173	100.53	100.00	101	
7440-38-2	Arsenic	75	250437	99.110	100.00	99.1	
7782-49-2	Selenium	82	22878	99.661	100.00	99.9	
7439-98-7	Molybdenum	97	394214	197.25	200.00	98.6	
7440-22-4	Silver	107	455256	49.374	50.000	98.7	
7440-43-9	Cadmium	111	166211	98.575	100.00	98.6	
7440-39-3	Barium	135	159039	97.821	100.00	97.8	
7439-92-1	Lead	208	2112387	99.078	100.00	99.1	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	521154		☑
7440-56-4	Germanium	72	1087106		☑
7440-74-6	Indium	115	908648		☑
7440-30-4	Thulium	169	638597		☑

Reviewed by: Date:

STL Sacramento

BLANK REPORT

Method: 6020 (SOP: SAC-MT-001) | M01 | Reported: 07/07/06 16:52:30

Department: 120 (Metals)

Source: MetEdit

Sample: CCB 3 | Mult: 1.00 | Diff: 1.00 | Divs: 1.000

Instrument: ICPMS M01
File: 060707A1 # 25
Acquired: 07/07/2006 12:55:45
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	3	-0.00257	1.0	0.078	0.0	
7440-62-2	Vanadium	51	-21192	0.26391	10.0	3.1	0.0	
7440-47-3	Chromium	52	33594	0.05406	2.0	0.92	0.0	
7439-96-5	Manganese	55	2248	-0.00169	1.0	0.063	0.0	
7440-48-4	Cobalt	59	160	0.00585	1.0	0.057	0.0	
7440-02-0	Nickel	60	162	-0.00813	2.0	0.098	0.0	
7440-50-8	Copper	65	267	-0.00803				
7440-66-6	Zinc	68	1423	-0.91543	5.0	1.0	0.0	
7440-38-2	Arsenic	75	15931	-0.15591	2.0	0.50	0.0	
7782-49-2	Selenium	82	1128	0.08302	2.0	1.7	0.0	
7439-98-7	Molybdenum	97	501	0.23476				
7440-22-4	Silver	107	146	0.01205	1.0	0.030	0.0	
7440-43-9	Cadmium	111	18	0.00607	1.0	0.074	0.0	
7440-39-3	Barium	135	177	0.01108	1.0	0.96	0.0	
7439-92-1	Lead	208	692	-0.00697	1.0	0.066	0.0	

< MDL

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	518186		☑
7440-56-4	Germanium	72	1094036		☑
7440-74-6	Indium	115	910545		☑
7440-30-4	Thulium	169	639591		☑

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CALIBRATION REPORT

Method: 6020 (SOP: SAC-MT-001) M01 Reported: 07/07/06 16:52:30

Department: 120 (Metals)

Source: MetEdit

Sample: **CCV 4 (CCV)** Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: **ICPMS M01**
File: 060707A1 # 26
Acquired: 07/07/2006 12:59:53
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	39516	100.82	100.00	101	
7440-62-2	Vanadium	51	1267705	99.832	100.00	99.8	
7440-47-3	Chromium	52	1128228	99.507	100.00	99.5	
7439-96-5	Manganese	55	1713355	100.41	100.00	100	
7440-48-4	Cobalt	59	1260840	100.72	100.00	101	
7440-02-0	Nickel	60	267530	101.37	100.00	101	
7440-50-8	Copper	65	257216	100.17	100.00	100	
7440-66-6	Zinc	68	99211	100.02	100.00	100	
7440-38-2	Arsenic	75	250230	99.513	100.00	99.5	
7782-49-2	Selenium	82	22816	100.05	100.00	100	
7439-98-7	Molybdenum	97	394661	198.38	200.00	99.2	
7440-22-4	Silver	107	454506	49.449	50.000	98.9	
7440-43-9	Cadmium	111	186517	99.052	100.00	99.1	
7440-39-3	Barium	135	159250	99.259	100.00	99.3	
7439-92-1	Lead	208	2107649	99.839	100.00	99.8	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	522712		☒
7440-56-4	Germanium	72	1082054		☒
7440-74-6	Indium	115	903790		☒
7440-30-4	Thulium	169	632300		☒

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) | M01 | Reported: 07/07/06 16:52:30

Department: 120 (Metals)

Source: MetEdit

Sample: CCB 4 | Mult: 1.00 | Dilf: 1.00 | Divs: 1.000

Instrument: ICPMS M01
File: 060707A1 # 27
Acquired: 07/07/2006 13:04:02
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	6	0.00451	1.0	0.078	0.0	
7440-62-2	Vanadium	51	-26356	-0.12952	10.0	3.1	0.0	
7440-47-3	Chromium	52	34450	0.13567	2.0	0.92	0.0	
7439-96-5	Manganese	55	2315	0.00242	1.0	0.083	0.0	
7440-48-4	Cobalt	59	167	0.00646	1.0	0.057	0.0	
7440-02-0	Nickel	60	181	-0.00092	2.0	0.098	0.0	
7440-50-8	Copper	65	279	-0.00371				
7440-66-6	Zinc	68	3490	0.16959	5.0	1.0	0.0	
7440-38-2	Arsenic	75	16262	-0.01140	2.0	0.50	0.0	
7782-49-2	Selenium	82	1132	0.10898	2.0	1.7	0.0	
7439-98-7	Molybdenum	97	495	0.23250				
7440-22-4	Silver	107	161	0.01364	1.0	0.030	0.0	
7440-43-9	Cadmium	111	15	0.00486	1.0	0.074	0.0	
7440-39-3	Barium	135	196	0.02225	1.0	0.96	0.0	
7439-92-1	Lead	208	779	-0.00493	1.0	0.068	0.0	

< MDL

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	511419		☑
7440-56-4	Germanium	72	1092817		☑
7440-74-6	Indium	115	911570		☑
7440-30-4	Thulium	169	639618		☑

Reviewed by: Date:

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CALIBRATION REPORT

Method: 6020 (SOP: SAC-MT-001) | M01 | Reported: 07/07/06 16:52:30

Department: 120 (Metals)

Source: MetEdit

Sample: **CCV 5 (CCV)** Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: **ICPMS M01**
File: 060707A1 # 38
Acquired: 07/07/2006 13:49:36
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	40937	97.110	100.00	97.1	
7440-62-2	Vanadium	51	1215695	99.320	100.00	99.3	
7440-47-3	Chromium	52	1125316	100.56	100.00	101	
7439-96-5	Manganese	55	1684145	99.869	100.00	100	
7440-48-4	Cobalt	59	1235161	99.941	100.00	99.9	
7440-02-0	Nickel	60	260379	99.924	100.00	99.9	
7440-50-8	Copper	65	253111	99.837	100.00	99.8	
7440-66-6	Zinc	68	97762	99.816	100.00	99.8	
7440-38-2	Arsenic	75	243265	97.881	100.00	97.9	
7782-49-2	Selenium	82	22090	98.014	100.00	98.0	
7439-98-7	Molybdenum	97	366079	196.55	200.00	98.3	
7440-22-4	Silver	107	443045	49.036	50.000	98.1	
7440-43-9	Cadmium	111	182755	98.732	100.00	98.7	
7440-39-3	Barium	135	157225	98.698	100.00	98.7	
7439-92-1	Lead	208	2126796	99.070	100.00	99.1	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	562235		☑
7440-56-4	Germanium	72	1066330		☑
7440-74-6	Indium	115	888365		☑
7440-30-4	Thulium	169	642894		☑

Reviewed by: Date:

STL Sacramento

BLANK REPORT

Method: 6020 (SOP: SAC-MT-001) | M01 | Reported: 07/07/06 16:52:30

Department: 120 (Metals)

Sample: **CCB 5** | Source: MetEdit

Mult: **1.00** Diff: **1.00** Divs: **1.000**

Instrument: **ICPMS M01**
File: 060707A1 # 39
Acquired: 07/07/2006 13:53:45
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	3	-0.00406	1.0	0.078	0.0	
7440-62-2	Vanadium	51	-20306	0.32945	10.0	3.1	0.0	
7440-47-3	Chromium	52	34437	0.18469	2.0	0.92	0.0	
7439-96-5	Manganese	55	2255	0.00107	1.0	0.093	0.0	
7440-48-4	Cobalt	59	208	0.00999	1.0	0.057	0.0	
7440-02-0	Nickel	60	179	-0.00089	2.0	0.098	0.0	
7440-50-8	Copper	65	278	-0.00195				
7440-66-6	Zinc	66	1455	-0.85813	5.0	1.0	0.0	
7440-38-2	Arsenic	75	15224	-0.34264	2.0	0.50	0.0	
7782-49-2	Selenium	82	1059	-0.14352	2.0	1.7	0.0	
7439-98-7	Molybdenum	97	450	0.21360				
7440-22-4	Silver	107	154	0.01329	1.0	0.030	0.0	
7440-43-9	Cadmium	111	19	0.00725	1.0	0.074	0.0	
7440-39-3	Barium	135	184	0.01809	1.0	0.96	0.0	
7439-92-1	Lead	208	730	-0.00724	1.0	0.066	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	559947		☑
7440-56-4	Germanium	72	1075312		☑
7440-74-6	Indium	115	891364		☑
7440-30-4	Thulium	169			☑

Reviewed by: Date:

STL Sacramento

RUN SUMMARY

Method: 6020 (SOP: SAC-MT-001) | Instrument: M01 | Reported: 07/07/06 16:51:58

File ID: 060707A1 | Analyst: jonesb

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
1	H7N1L n.i.	G6F190128-1	6180323	2A	1.0	07/07/06 10:54		
2	Rinse 3X				3.0	07/07/06 11:07		
3	Blank				1.0	07/07/06 11:11		
4	Standard1				1.0	07/07/06 11:15		
5	ICV				1.0	07/07/06 11:20		
6	ICB				1.0	07/07/06 11:24		
7	ICSA				1.0	07/07/06 11:28		
8	ICSAB				1.0	07/07/06 11:32		
9	Rinse				1.0	07/07/06 11:50		
10	CCV 1				1.0	07/07/06 11:54		
11	CCB 1				1.0	07/07/06 11:58		
12	CCV 2				1.0	07/07/06 12:02		
13	CCB 2				1.0	07/07/06 12:06		
14	H8F1AB	G6F290000	6180323	2A	1.0	07/07/06 12:10		
15	H8F1AC	G6F290000	6180323	2A	1.0	07/07/06 12:14		
16	H8F1AI	G6F290000	6180323	2A	1.0	07/07/06 12:18		
17	H7N1L	G6F190128-1	6180323	2A	1.0	07/07/06 12:22		
18	H7N1LP5	G6F190128	6180323		5.0	07/07/06 12:27		
19	H7N1LZ	G6F190128-1	6180323		1.0	07/07/06 12:31		
20	H7N1M	G6F190128-2	6180323	2A	1.0	07/07/06 12:35		
21	H7N1N	G6F190128-3	6180323	2A	1.0	07/07/06 12:39		
22	H7N1P	G6F190128-4	6180323	2A	1.0	07/07/06 12:43		
23	H7N1T	G6F190128-5	6180323	2A	1.0	07/07/06 12:47		
24	CCV 3				1.0	07/07/06 12:51		
25	CCB 3				1.0	07/07/06 12:55		
26	CCV 4				1.0	07/07/06 12:59		
27	CCB 4				1.0	07/07/06 13:04		
28	H7N1W	G6F190128-6	6180323	2A	1.0	07/07/06 13:08		
29	H7N10	G6F190128-7	6180323	2A	1.0	07/07/06 13:12		
30	H7N11	G6F190128-8	6180323	2A	1.0	07/07/06 13:16		
31	H7N14	G6F190128-9	6180323	2A	1.0	07/07/06 13:20		
32	H7N16	G6F190128-10	6180323	2A	1.0	07/07/06 13:24		
33	H7N17	G6F190128-11	6180323	2A	1.0	07/07/06 13:28		
34	H7N19	G6F190128-12	6180323	2A	1.0	07/07/06 13:32		
35	H7N2A	G6F190128-13	6180323	2A	1.0	07/07/06 13:37		
36	H7N2E	G6F190128-14	6180323	2A	1.0	07/07/06 13:41		
37	H7N2F	G6F190128-15	6180323	2A	1.0	07/07/06 13:45		
38	CCV 5				1.0	07/07/06 13:49		
39	CCB 5				1.0	07/07/06 13:53		

STL Sacramento

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) | M01 (M01) | Reported: 07/07/06 16:51:56

File ID: 060707A1 | Analyst: lonesb

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
1	H7N1L n.i.	07/07/06 10:54	0.1	0.1	0.1	0.0	☐
2	Rinse 3X	07/07/06 11:07	100.3	100.1	100.7	99.5	☐
3	Blank	07/07/06 11:11	100.0	100.0	100.0	100.0	☑
4	Standard1	07/07/06 11:15	97.0	95.6	102.0	98.9	☑
5	ICV	07/07/06 11:20	96.0	96.1	102.9	97.8	☑
6	ICB	07/07/06 11:24	97.0	97.2	104.0	98.1	☑
7	ICSA	07/07/06 11:28	78.7	85.9	75.2	76.9	☑
8	ICSAB	07/07/06 11:32	77.4	85.9	71.1	76.1	☑
9	Rinse	07/07/06 11:50	101.0	101.2	98.3	101.5	☑
10	CCV 1	07/07/06 11:54	99.2	99.2	98.6	98.9	☑
11	CCB 1	07/07/06 11:58	100.6	100.8	96.7	100.6	☑
12	CCV 2	07/07/06 12:02	98.5	98.5	98.4	98.5	☑
13	CCB 2	07/07/06 12:06	100.6	101.2	98.6	101.0	☑
14	H8F1AB	07/07/06 12:10	100.2	107.2	99.3	107.4	☑
15	H8F1AC	07/07/06 12:14	98.1	103.2	97.6	104.0	☑
16	H8F1AL	07/07/06 12:18	96.5	101.1	95.4	102.5	☑
17	H7N1L	07/07/06 12:22	97.6	101.1	94.1	102.2	☑
18	H7N1LP5	07/07/06 12:27	97.5	98.6	98.7	100.1	☐
19	H7N1LZ	07/07/06 12:31	96.2	99.4	97.8	101.2	☑
20	H7N1M	07/07/06 12:35	95.7	98.5	95.9	100.7	☑
21	H7N1N	07/07/06 12:39	97.6	99.8	98.6	100.9	☑
22	H7N1P	07/07/06 12:43	97.7	100.5	100.6	102.5	☑
23	H7N1T	07/07/06 12:47	97.4	99.9	99.2	100.8	☑
24	CCV 3	07/07/06 12:51	97.9	97.7	100.8	98.6	☑
25	CCB 3	07/07/06 12:55	98.5	98.1	100.2	98.8	☑
26	CCV 4	07/07/06 12:59	97.4	97.4	101.1	97.6	☑
27	CCB 4	07/07/06 13:04	98.4	98.2	98.9	98.8	☑
28	H7N1W	07/07/06 13:08	100.2	102.6	99.7	103.2	☑
29	H7N10	07/07/06 13:12	100.3	102.5	98.6	103.7	☑
30	H7N11	07/07/06 13:16	99.0	101.3	99.7	102.6	☑
31	H7N14	07/07/06 13:20	99.2	101.6	102.7	102.5	☑
32	H7N16	07/07/06 13:24	98.5	100.9	103.4	102.6	☑
33	H7N17	07/07/06 13:28	98.7	99.3	103.4	101.3	☑
34	H7N19	07/07/06 13:32	97.2	100.1	106.9	103.1	☑
35	H7N2A	07/07/06 13:37	97.2	99.0	105.3	102.1	☑
36	H7N2E	07/07/06 13:41	97.4	100.4	103.5	102.5	☑
37	H7N2F	07/07/06 13:45	98.2	101.2	102.5	103.1	☑
38	CCV 5	07/07/06 13:49	96.2	95.7	108.7	99.3	☑
39	CCB 5	07/07/06 13:53	96.8	96.1	108.3	98.6	☑

STL Sacramento

CALIBRATION CHECK SUMMARY

Method: CVHG - Mercury (Mercury by Cold Vapor AA) | Instrument: STL2 (H03) | Reported: 07/03/06 13:08:04

Sequence: 30JUN06Z | Date: 06/30/06 15:34 | Analyst: merrittn | ICV: _____ | CAL/CCV: _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
7	ICV	= 2.00			1.95	1.0	1.95	ug/L	97.5%	06/30/06 15:34		☐
8	ICB				-0.01	1.0	-0.01	ug/L		06/30/06 15:36		☐
19	CCV	= 5.00			4.99	1.0	4.99	ug/L	99.8%	06/30/06 15:55		☐
20	CCB				-0.02	1.0	-0.02	ug/L		06/30/06 15:57		☐
29	CCV	= 5.00			5.02	1.0	5.02	ug/L	100.4%	06/30/06 16:14		☐
30	CCB				-0.01	1.0	-0.01	ug/L		06/30/06 16:16		☐

G6F190128

STL Sacramento

RUN SUMMARY

Method: CVHG - Mercury (Mercury by Cold Vapor AA) | Instrument: STL2 (H03) | Reported: 07/03/06 13:07:56

Sequence: 30JUN06Z | Date: 06/30/06 15:15 | Analyst: merrittn | ICV: _____ | CAL/CCV: _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
1	Std01Rep1				0.00	1.0	0.00	ug/L		06/30/06 15:15		
2	Std02Rep1	= 0.200			0.00	1.0	0.00	ug/L		06/30/06 15:17		
3	Std03Rep1	= 0.500			0.00	1.0	0.00	ug/L		06/30/06 15:19		
4	Std04Rep1	= 1.00			0.00	1.0	0.00	ug/L		06/30/06 15:21		
5	Std05Rep1	= 5.00			0.00	1.0	0.00	ug/L		06/30/06 15:23		
6	Std06Rep1	= 10.0			0.00	1.0	0.00	ug/L		06/30/06 15:25		
7	ICV	= 2.00			1.95	1.0	1.95	ug/L	97.5%	06/30/06 15:34		
8	ICB				-0.01	1.0	-0.01	ug/L		06/30/06 15:36		
9	H8KDNB	G6F300000	6181490		-0.01	1.0	-0.01	ug/L		06/30/06 15:37		
10	H8KDNC	G6F300000 = 1.80	6181490		0.98	1.0	0.58	ug/L	32.5%	06/30/06 15:39		
11	H8KDNL	G6F300000 = 1.80	6181490		0.96	1.0	0.58	ug/L	32.1%	06/30/06 15:41		
12	H7N1L	G6F190128-1	6181490	AIR	0.09	1.0	0.05	ug/L		06/30/06 15:43		
13	H7N1M	G6F190128-2	6181490	AIR	0.08	1.0	0.05	ug/L		06/30/06 15:45		
14	H7N1N	G6F190128-3	6181490	AIR	0.09	1.0	0.06	ug/L		06/30/06 15:46		
15	H7N1P	G6F190128-4	6181490	AIR	0.11	1.0	0.07	ug/L		06/30/06 15:48		
16	H7N1T	G6F190128-5	6181490	AIR	0.10	1.0	0.06	ug/L		06/30/06 15:50		
17	H7N1W	G6F190128-6	6181490	AIR	0.10	1.0	0.06	ug/L		06/30/06 15:52		
18	H7N10	G6F190128-7	6181490	AIR	0.14	1.0	0.09	ug/L		06/30/06 15:53		
19	CCV	= 5.00			4.99	1.0	4.99	ug/L	99.8%	06/30/06 15:55		
20	CCB				-0.02	1.0	-0.02	ug/L		06/30/06 15:57		
21	H7N11	G6F190128-8	6181490	AIR	0.13	1.0	0.08	ug/L		06/30/06 15:59		
22	H7N14	G6F190128-9	6181490	AIR	0.10	1.0	0.06	ug/L		06/30/06 16:00		
23	H7N16	G6F190128-10	6181490	AIR	0.12	1.0	0.07	ug/L		06/30/06 16:02		
24	H7N17	G6F190128-11	6181490	AIR	0.14	1.0	0.08	ug/L		06/30/06 16:04		
25	H7N19	G6F190128-12	6181490	AIR	0.14	1.0	0.08	ug/L		06/30/06 16:06		
26	H7N2A	G6F190128-13	6181490	AIR	0.15	1.0	0.09	ug/L		06/30/06 16:08		
27	H7N2E	G6F190128-14	6181490	AIR	0.04	1.0	0.02	ug/L		06/30/06 16:10		
28	H7N2F	G6F190128-15	6181490	AIR	0.05	1.0	0.03	ug/L		06/30/06 16:12		
29	CCV	= 5.00			5.02	1.0	5.02	ug/L	100.4%	06/30/06 16:14		
30	CCB				-0.01	1.0	-0.01	ug/L		06/30/06 16:16		

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: G6F190128 Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: G6F290000-323 Prep Batch #...: 6180323						
Arsenic	ND	3.6	ug	SW846 6020	06/28-07/07/06	H8F1A1AC
		Dilution Factor: 1				
Barium	ND	120	ug	SW846 6020	06/28-07/07/06	H8F1A1AD
		Dilution Factor: 1				
Beryllium	ND	1.2	ug	SW846 6020	06/28-07/07/06	H8F1A1AE
		Dilution Factor: 1				
Cadmium	ND	1.2	ug	SW846 6020	06/28-07/07/06	H8F1A1AF
		Dilution Factor: 1				
Chromium	ND	12.0	ug	SW846 6020	06/28-07/07/06	H8F1A1AH
		Dilution Factor: 1				
Cobalt	ND	12.0	ug	SW846 6020	06/28-07/07/06	H8F1A1AG
		Dilution Factor: 1				
Copper	ND	6.0	ug	SW846 6020	06/28-07/07/06	H8F1A1AJ
		Dilution Factor: 1				
Lead	ND	1.2	ug	SW846 6020	06/28-07/07/06	H8F1A1AN
		Dilution Factor: 1				
Manganese	3.5 B	6.0	ug	SW846 6020	06/28-07/07/06	H8F1A1AK
		Dilution Factor: 1				
Molybdenum	ND	6.0	ug	SW846 6020	06/28-07/07/06	H8F1A1AL
		Dilution Factor: 1				
Nickel	ND	6.0	ug	SW846 6020	06/28-07/07/06	H8F1A1AM
		Dilution Factor: 1				
Selenium	ND	3.6	ug	SW846 6020	06/28-07/07/06	H8F1A1AP
		Dilution Factor: 1				
Silver	ND	1.2	ug	SW846 6020	06/28-07/07/06	H8F1A1AA
		Dilution Factor: 1				
Vanadium	ND	12.0	ug	SW846 6020	06/28-07/07/06	H8F1A1AQ
		Dilution Factor: 1				
Zinc	ND	24.0	ug	SW846 6020	06/28-07/07/06	H8F1A1AR
		Dilution Factor: 1				

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: G6F190128 Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: G6F290000-328 Prep Batch #...: 6180328						
Aluminum	ND	240	ug	SW846 6010B	06/28-07/01/06	H8F171AA
		Dilution Factor: 1				
Calcium	ND	3000	ug	SW846 6010B	06/28-07/01/06	H8F171AC
		Dilution Factor: 1				
Iron	20.3 B	120	ug	SW846 6010B	06/28-07/01/06	H8F171AD
		Dilution Factor: 1				
Magnesium	ND	600	ug	SW846 6010B	06/28-07/01/06	H8F171AE
		Dilution Factor: 1				
Sodium	ND	6000	ug	SW846 6010B	06/28-07/01/06	H8F171AF
		Dilution Factor: 1				
MB Lot-Sample #: G6F300000-490 Prep Batch #...: 6181490						
Mercury	ND	0.12	ug	SW846 7471A	06/29-06/30/06	H8KDN1AA
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

STL Sacramento

SAMPLE SPIKE

Method: 6010 | PE ICP2 | Reported: 07/03/06 10:25:53

Department: 120 (Metals)

Source: OPTIMA

Sample: **H7N1LZ** | Spike Dilution: 1.00 | Sample Dilution: 1.00

Instrument: PE 4300
File: JUL0106AX.csv # 14
Acquired: 07/01/2006 09:22:21
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010O
PE ICP2

85-115 %

Matrix: AIR
Units: mg/L

CASN	Analyte Name	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-70-2	Calcium		49.322	0.51050	97.6	50.0		☑
7439-95-4	Magnesium		51.028	0.25553	102	50.0		☑
7440-66-6	Zinc		0.52637	0.00729	104	0.500		☑
7429-90-5	Aluminum		2.3138	0.27320	102	2.00		☑
7439-89-6	Iron		1.3490	0.31210	104	1.00		☑
7439-89-6	Iron		1.3846	0.31634	107	1.00		☑
7440-23-5	Sodium		49.657	0.76882	97.8	50.0		☑
7440-23-5	Sodium		51.559	0.77536	102	50.0		☑

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_ Axial		93.535	☑
R7440655	Y_ Radial		96.292	☑
In_Axial	In Axial		92.835	☑
In_Radial	In Radial		98.624	☑
Sc_Axial	Sc Axial		94.441	☑
Sc_Radial	Sc Radial		97.325	☑

Reviewed by: Date:

STL Sacramento

SAMPLE SPIKE

Method: 6020 (SOP: SAC-MT-001) | M01 | Reported: 07/07/06 16:52:21

Department: 120 (Metals)

Source: MetEdit

Sample: **H7N1LZ** Spike Dilution: **1.00** Sample Dilution: **1.00**

Instrument: **ICPMS M01**
File: 060707A1 # 19
Acquired: 07/07/2006 12:31:06
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

85-115 %

Matrix: AIR
Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	72496	191.19	0.00711	95.6	200		☑
7440-62-2	Vanadium	51	2370682	191.77	2.6095	94.6	200		☑
7440-47-3	Chromium	52	2173788	196.93	0.68930	98.1	200		☑
7439-96-5	Manganese	55	3554998	211.09	12.851	99.1	200		☑
7440-48-4	Cobalt	59	2466440	199.49	0.38539	99.6	200		☑
7440-02-0	Nickel	60	527242	202.33	1.5788	100	200		☑
7440-50-8	Copper	65	546513	215.61	14.620	100	200		☑
7440-66-6	Zinc	68	199866	206.45	6.4342	100	200		☑
7440-38-2	Arsenic	75	459962	191.10	0.19933	95.4	200		☑
7782-49-2	Selenium	82	42423	192.81	0.52436	96.1	200		☑
7439-98-7	Molybdenum	97	397246	202.15	0.45975	101	200		☑
7440-22-4	Silver	107	539409	57.493	0.02284	115	50.0		☑
7440-43-9	Cadmium	111	368698	191.92	0.04778	95.9	200		☑
7440-39-3	Barium	135	332023	200.79	4.9221	97.9	200		☑
7439-92-1	Lead	208	4318854	197.47	1.8084	97.8	200		☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	805725		☒
7440-56-4	Germanium	72	1088752		☒
7440-74-6	Indium	115	922535		☒
7440-30-4	Thulium	169	855222		☒

Reviewed by: Date:

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: G6F190128 Matrix.....: AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Arsenic	240	223	ug	93		SW846 6020	06/28-07/07/06	6180323
	240	225	ug	94	0.91	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Barium	240	235	ug	98		SW846 6020	06/28-07/07/06	6180323
	240	237	ug	99	1.1	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Beryllium	240	225	ug	94		SW846 6020	06/28-07/07/06	6180323
	240	229	ug	96	1.8	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Cadmium	240	224	ug	93		SW846 6020	06/28-07/07/06	6180323
	240	227	ug	95	1.6	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Chromium	240	238	ug	99		SW846 6020	06/28-07/07/06	6180323
	240	238	ug	99	0.16	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Cobalt	240	240	ug	100		SW846 6020	06/28-07/07/06	6180323
	240	240	ug	100	0.04	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Copper	240	243	ug	101		SW846 6020	06/28-07/07/06	6180323
	240	243	ug	101	0.02	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Lead	240	233	ug	97		SW846 6020	06/28-07/07/06	6180323
	240	237	ug	99	1.6	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Manganese	240	240	ug	100		SW846 6020	06/28-07/07/06	6180323
	240	243	ug	101	0.99	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Molybdenum	240	246	ug	102		SW846 6020	06/28-07/07/06	6180323
	240	247	ug	103	0.63	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: G6F190128

Matrix.....: AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nickel	240	245	ug	102		SW846 6020	06/28-07/07/06	6180323
	240	244	ug	102	0.07	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Selenium	240	221	ug	92		SW846 6020	06/28-07/07/06	6180323
	240	225	ug	94	1.4	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Silver	60.0	57.7	ug	96		SW846 6020	06/28-07/07/06	6180323
	60.0	58.6	ug	98	1.4	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Vanadium	240	232	ug	97		SW846 6020	06/28-07/07/06	6180323
	240	233	ug	97	0.52	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Zinc	240	231	ug	96		SW846 6020	06/28-07/07/06	6180323
	240	233	ug	97	0.66	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1						
Aluminum	2400	2430	ug	101		SW846 6010B	06/28-07/01/06	6180328
	2400	2480	ug	103	2.1	SW846 6010B	06/28-07/01/06	6180328
		Dilution Factor: 1						
Calcium	60000	58200	ug	97		SW846 6010B	06/28-07/01/06	6180328
	60000	59100	ug	98	1.4	SW846 6010B	06/28-07/01/06	6180328
		Dilution Factor: 1						
Iron	1200	1230	ug	103		SW846 6010B	06/28-07/01/06	6180328
	1200	1230	ug	102	0.19	SW846 6010B	06/28-07/01/06	6180328
		Dilution Factor: 1						
Magnesium	60000	60700	ug	101		SW846 6010B	06/28-07/01/06	6180328
	60000	61400	ug	102	1.2	SW846 6010B	06/28-07/01/06	6180328
		Dilution Factor: 1						
Sodium	60000	58300	ug	97		SW846 6010B	06/28-07/01/06	6180328
	60000	58500	ug	97	0.37	SW846 6010B	06/28-07/01/06	6180328
		Dilution Factor: 1						

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: G6F190128

Matrix.....: AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Mercury	0.600	0.585	ug	98		SW846 7471A	06/29-06/30/06	6181490
	0.600	0.578	ug	96	1.2	SW846 7471A	06/29-06/30/06	6181490

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: G6F190128

Matrix.....: AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Arsenic	93	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	94	(75 - 125)	0.91	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Barium	98	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	99	(75 - 125)	1.1	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Beryllium	94	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	96	(75 - 125)	1.8	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Cadmium	93	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	95	(75 - 125)	1.6	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Chromium	99	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	99	(75 - 125)	0.16	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Cobalt	100	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	100	(75 - 125)	0.04	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Copper	101	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	101	(75 - 125)	0.02	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Lead	97	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	99	(75 - 125)	1.6	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Manganese	100	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	101	(75 - 125)	0.99	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Molybdenum	102	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	103	(75 - 125)	0.63	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: G6F190128 Matrix.....: AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Nickel	102	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	102	(75 - 125)	0.07	(0-30)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Selenium	92	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	94	(75 - 125)	1.4	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Silver	96	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	98	(75 - 125)	1.4	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Vanadium	97	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	97	(75 - 125)	0.52	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Zinc	96	(75 - 125)			SW846 6020	06/28-07/07/06	6180323
	97	(75 - 125)	0.66	(0-20)	SW846 6020	06/28-07/07/06	6180323
		Dilution Factor: 1					
Aluminum	101	(75 - 125)			SW846 6010B	06/28-07/01/06	6180328
	103	(75 - 125)	2.1	(0-20)	SW846 6010B	06/28-07/01/06	6180328
		Dilution Factor: 1					
Calcium	97	(75 - 125)			SW846 6010B	06/28-07/01/06	6180328
	98	(75 - 125)	1.4	(0-20)	SW846 6010B	06/28-07/01/06	6180328
		Dilution Factor: 1					
Iron	103	(75 - 125)			SW846 6010B	06/28-07/01/06	6180328
	102	(75 - 125)	0.19	(0-30)	SW846 6010B	06/28-07/01/06	6180328
		Dilution Factor: 1					
Magnesium	101	(75 - 125)			SW846 6010B	06/28-07/01/06	6180328
	102	(75 - 125)	1.2	(0-20)	SW846 6010B	06/28-07/01/06	6180328
		Dilution Factor: 1					
Sodium	97	(75 - 125)			SW846 6010B	06/28-07/01/06	6180328
	97	(75 - 125)	0.37	(0-20)	SW846 6010B	06/28-07/01/06	6180328
		Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: G6F190128

Matrix.....: AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Mercury	98	(75 - 125)			SW846 7471A	06/29-06/30/06	6181490
	96	(75 - 125)	1.2	(0-20)	SW846 7471A	06/29-06/30/06	6181490

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

STL Sacramento

SERIAL DILUTION

Method: 6010 | PE ICP2 | Reported: 07/03/06 10:25:44

Department: 120 (Metals)

Source: OPTIMA

Sample: H7N1LP5 | Serial Dilution: 5.00 | Sample Dilution: 1.00

Instrument: PE 4300
File: JUL0106AX.csv # 13
Acquired: 07/01/2006 09:18:48
Calibrated: 07/01/2006 08:38:25

Channel 268
Method 6010O
PE ICP2

Matrix: AIR
Units: mg/L

CASN	Analyte Name	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-70-2	Calcium		0.52361	0.51050	2.57	0.75	NC	☑
7439-95-4	Magnesium		0.26194	0.25553	2.51	0.081	NC	☑
7440-66-6	Zinc		0.01225	0.00729	67.9		*	
7429-90-5	Aluminum		0.25418	0.27925	6.96	0.034	NC	☑
7439-89-6	Iron		0.30944	0.31210	0.850	0.012	NC	☑
7439-89-6	Iron		0.31454	0.31634	0.568	0.012	NC	☑
7440-23-5	Sodium		0.60086	0.78982	21.8	1.7	NC	☑
7440-23-5	Sodium		1.0430	0.77536	34.5	1.7	NC	☑

CASN	ISTD Name	Area	Amount	Q
A7440655	Y_ Axial		99.470	☑
R7440655	Y_ Radial		99.128	☑
In_Axial	In Axial		99.298	☑
In_Radial	In Radial		99.607	☑
Sc_Axial	Sc Axial		99.540	☑
Sc_Radial	Sc Radial		99.199	☑

* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 50 X MDL

E : Difference greater than Limit (10%)

Reviewed by: Date:

IDB Reports | Severn Trent Laboratories | Version: 6.02.068

View Page 1 of 1

STL Sacramento

SERIAL DILUTION

Method: 6020 (SOP: SAC-MT-001) M01 Reported: 07/07/06 16:52:07

Department: 120 (Metals)

Source: MetEdit

Sample: H7N1LP5 Serial Dilution: 5.00 Sample Dilution: 1.00

Instrument: ICPMS M01
File: 060707A1 # 18
Acquired: 07/07/2006 12:27:01
Calibrated: 07/07/2006 11:11:41

Channel 261
Method 6020_
M01

Matrix: AIR
Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	6	0.01826	0.00711	157	0.0070	NC	☑
7440-62-2	Vanadium	51	-18169	2.5390	2.6095	2.70	2.4	NC	☑
7440-47-3	Chromium	52	33581	0.42453	0.69930	38.4	8.6	NC	☑
7439-96-5	Manganese	55	46147	12.972	12.851	0.168	1.8	NC	☑
7440-48-4	Cobalt	59	1056	0.38772	0.38539	0.607	3.1	NC	☑
7440-02-0	Nickel	60	981	1.5133	1.5788	4.15	2.9	NC	☑
7440-50-8	Copper	65	7720	14.487	14.620	0.906	2.4	NC	☑
7440-66-6	Zinc	68	4595	11.854	6.4342	84.2	5.2	NC	☑
7440-38-2	Arsenic	75	15303	-1.7554	0.19833	985	1.6	NC	☑
7782-49-2	Selenium	82	1085	-0.31312	0.52436	160	1.4	NC	☑
7439-98-7	Molybdenum	97	288	0.65180	0.45975	41.8	0.94	NC	☑
7440-22-4	Silver	107	148	0.06087	0.02284	167	0.012	NC	☑
7440-43-9	Cadmium	111	27	0.05431	0.04778	13.7	0.045	NC	☑
7440-39-3	Barium	135	1978	5.5356	4.9221	12.5	29.0	NC	☑
7439-92-1	Lead	208	8607	1.7827	1.8084	1.42	0.28	NC	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	510167		☑
7440-56-4	Germanium	72	1082600		☐
7440-74-6	Indium	115	916459		☐
7440-30-4	Thulium	169	648144		☐

* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL ~~~ < 5DL

E : Difference greater than Limit (10%)

Reviewed by: Date:

STL SACRAMENTO
Metals - Air Toxics - Preparation Log

Date: 28-Jun-06 **Analyst:** merrittn **Matrix:** AIR

Fraction: Filter **SOP:** **Method:** ICPTRACE

LOT ID		Workorder		Volume Received	Volume Removed	Initial Prep Volume	Final Prep Volume	Batch	Prep Factor
G6F290000	328	H8F17B	2A	NA	NA	NA	100	6180328	1.2
G6F290000	328	H8F17C	2A	NA	NA	NA	100	6180328	1.2
G6F290000	328	H8F17L	2A	NA	NA	NA	100	6180328	1.2
G6F190128	1	H7N1L	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	2	H7N1M	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	3	H7N1N	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	4	H7N1P	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	5	H7N1T	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	6	H7N1W	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	7	H7N10	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	8	H7N11	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	9	H7N14	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	10	H7N16	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	11	H7N17	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	12	H7N19	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	13	H7N2A	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	14	H7N2E	2A	9	0.75	0.75	100	6180328	1.2
G6F190128	15	H7N2F	2A	9	0.75	0.75	100	6180328	1.2
Mbcontrol	1	F1815168	2A	9	0.75	0.75	100	6180328	1.2

For 1" filter: factor = 9 (9/1)
For 0.75" filter factor = 12 (9/0.75)

STL SACRAMENTO
Metals - Air Toxics - Preparation Log

Date: 28-Jul-06 Analyst: merrittn Matrix: AIR

Fraction: Filter SOP: Method: ICPMS

LOT ID		Workorder		Volume Received	Volume Removed	Initial Prep Volume	Final Prep Volume	Batch	Prep Factor
G6F290000	323	H8F1AB	2A	NA	NA	NA	100	6180323	1.2
G6F290000	323	H8F1AC	2A	NA	NA	NA	100	6180323	1.2
G6F290000	323	H8F1AL	2A	NA	NA	NA	100	6180323	1.2
G6F190128	1	H7N1L	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	2	H7N1M	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	3	H7N1N	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	4	H7N1P	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	5	H7N1T	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	6	H7N1W	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	7	H7N10	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	8	H7N11	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	9	H7N14	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	10	H7N16	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	11	H7N17	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	12	H7N19	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	13	H7N2A	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	14	H7N2E	2A	9	0.75	0.75	100	6180323	1.2
G6F190128	15	H7N2F	2A	9	0.75	0.75	100	6180323	1.2

For 1" filter: factor = 9 (9/1)
For 0.75" filter factor = 12 (9/0.75)

STL Sacramento
Mercury Sample Preparation Log

STL Lot Number	WO #	pH	Matrix	Wt/Vol	Final Vol.
0	Std1Rep1	NA	AQUEOUS	50	50
0.2	Std2Rep1	NA	AQUEOUS	50	50
0.5	Std3Rep1	NA	AQUEOUS	50	50
1	Std4Rep1	NA	AQUEOUS	50	50
5	Std5Rep1	NA	AQUEOUS	50	50
10	Std6Rep1	NA	AQUEOUS	50	50
ICV	ICV	NA	AQUEOUS	50	50
ICB	ICB	NA	AQUEOUS	50	50
G6F300000-490	H8KDNB		AQUEOUS	0.75	50
G6F300000-490	H8KDNC		AQUEOUS	0.75	50
G6F300000-490	H8KDNL		AQUEOUS	0.75	50
G6F190128-1	H7N1L		Filtr	0.75	50
G6F190128-2	H7N1M		Filtr	0.75	50
G6F190128-3	H7N1N		Filtr	0.75	50
G6F190128-4	H7N1P		Filtr	0.75	50
G6F190128-5	H7N1T		Filtr	0.75	50
G6F190128-6	H7N1W		Filtr	0.75	50
G6F190128-7	H7N10		Filtr	0.75	50
G6F190128-8	H7N11		Filtr	0.75	50
G6F190128-9	H7N14		Filtr	0.75	50
G6F190128-10	H7N16		Filtr	0.75	50
G6F190128-11	H7N17		Filtr	0.75	50
G6F190128-12	H7N19		Filtr	0.75	50
G6F190128-13	H7N2A		Filtr	0.75	50
G6F190128-14	H7N2E		Filtr	0.75	50
G6F190128-15	H7N2F		Filtr	0.75	50
CCV	CCV		AQUEOUS	50	50
CCB	CCB		AQUEOUS	50	50

Chemist:	merrittn	**Date:**	06/30/06
SOP#:	SAC-MT-0005		
Autoclave: Start Time:	9:10	**End:**	11:00
Balance ID:	QA-007	**Calibrated:**	NA

STANDARDS:

Initial Calibration Standard (ICV):

Lot#:1767-21-4 Conc: 100ppb

Calibration Stds./CCV/Matrix Spike/LCSW

Lot#:1767-21-5 Conc: 100ppb

SOIL (0.6g/50ml)	
Curve/QC (ppb)	Spike Volume
0.0	0.0 ul
0.2	100 ul
0.5	250 ul
1.0	0.5 ml
5.0	2.5 ml
10.0	5.0 ml
CCV/5.0	2.5 ml
LCS/1.0	0.6g/0.5 ml
MS/SD/3.0	1.5 ml
ICV/2.0	1.0 ml

WATER (30/30ml) , DI Leach (30/30)

STLC (3/30 ml) , TCLP (6/30ml)

Curve/QC (ppb)	Spike Volume
0.0	0.0 ul
0.2	60 ul
0.5	150 ul
1.0	300 ul
5.0	1.5 ml
10.0	3.0 ml
CCV/5.0	1.5 ml
LCS/1.0	300 ul
ICV/2.0	600 ul

REAGENTS:

HNO3 Lot#: C02065

H2SO4 Lot#: C05024

KMnO4 Lot# 2626-MET-45-1

06/30 06

CASE NARRATIVE

STL SACRAMENTO PROJECT NUMBER G6F190128

AIR, TSP

The final weight for sample 15 was less than the initial weight so this result was reported as 'ND'.

There were no other anomalies associated with this project.

Sample Summary
G6F190128

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
H7N1L	1	P-0668	6/12/2006 02:25 PM	6/19/2006 09:00 AM
H7N1M	2	P-0669	6/12/2006 01:45 PM	6/19/2006 09:00 AM
H7N1N	3	P-0670	6/12/2006 02:45 PM	6/19/2006 09:00 AM
H7N1P	4	P-0671	6/12/2006 03:50 PM	6/19/2006 09:00 AM
H7N1T	5	P-0672	6/12/2006 06:35 PM	6/19/2006 09:00 AM
H7N1W	6	P-0673	6/12/2006 07:10 PM	6/19/2006 09:00 AM
H7N10	7	P-0674	6/12/2006 02:35 PM	6/19/2006 09:00 AM
H7N11	8	000494	6/12/2006 02:30 PM	6/19/2006 09:00 AM
H7N14	9	000495	6/12/2006 03:50 PM	6/19/2006 09:00 AM
H7N16	10	000496	6/12/2006 04:50 PM	6/19/2006 09:00 AM
H7N17	11	000497	6/12/2006 05:55 PM	6/19/2006 09:00 AM
H7N19	12	000498	6/12/2006 06:40 PM	6/19/2006 09:00 AM
H7N2A	13	000499	6/12/2006 07:15 PM	6/19/2006 09:00 AM
H7N2E	14	000500	6/12/2006 06:45 PM	6/19/2006 09:00 AM
H7N2F	15	000501	6/12/2006 02:45 PM	6/19/2006 09:00 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

BROWN AND CALDWELL

CHAIN OF CUSTODY RECORD

COC No.

Event 84

YERA000167

☒ 3264 Goni Road / Suite 153
Carson City, NV 89706
775-883-4118 / FAX 775-883-5108

☐ 4425 W. Spring Mountain Road / Suite 225
Las Vegas, NV 89102
702-938-4080 / FAX 702-938-4082

☐ 201 East Washington Street / Suite 500
Phoenix, AZ 85004
602-567-4000 / FAX 602-567-4001

PROJECT NAME: Yerington Air Qlty

PROJECT NUMBER: 121243

LABORATORY NAME & ADDRESS: SEVERN TRENT LABS., WEST SACRAMENTO,

LINE NO.	SAMPLE - I.D.	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	FIELD FILTERED	QC - REQ	TATL 48/hr	SAMPLING METHOD	DEPTH (FT.) BEGIN / END	PID READING (ppm)
01	-P-0668	6/12/06	2:25	JJ	1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			0.38		----	
02	-P-0669	↓	3:45	↓	1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			0.32		----	
03	-P-0670		4:45		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			0.27		----	
04	-P-0671		5:50		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			0.27		----	
05	-P-0672		6:55		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			0.41		----	
06	-P-0673		7:10		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			0.27		----	
07	-P-0674		2:35		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			0.34		----	
08														----	
09														----	
10														----	

COLLECTED & RELEASED BY: [signature] DATE 6/16/06 TIME 1600

RECEIVED BY: [signature] DATE 6/19/06 TIME 09:45

COOLER I.D.:

RELINQUISHED BY: DATE / / TIME :

COMMENTS (see note on back):

RECORD RETURNED BY: DATE / / TIME :

COURIER: FED EX

SHIPPING NUMBER: 792129346778

DISTRIBUTION: WHITE – PROJECT FILE • CANARY – LAB RECEIPT • PINK – DATA MANAGEMENT • GOLDENROD – FIELD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK.

BROWN AND CALDWELL

CHAIN OF CUSTODY RECORD

COC No. _____

Event 84

YERA000168

3264 Goni Road / Suite 153
Carson City, NV 89706
775-883-4118 / FAX 775-883-5108

☐ 4425 W. Spring Mountain Road / Suite 225
Las Vegas, NV 89102
702-938-4080 / FAX 702-938-4082

☐ 201 East Washington Street / Suite 300
Phoenix, AZ 85004
602-567-4000 / FAX 602-567-4001

GBF190128

PROJECT NAME: Yerington Air Qlty

PROJECT NUMBER: 121243

LABORATORY NAME & ADDRESS: SEVERN TRENT LABS., WEST SACRAMENTO,

LINE NO.	SAMPLE – I.D.	COLLECTION DATE	COLLECTION TIME (MST)	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	FIELD FILTERED	QC – REQ	Time (PST) (MST)	SAMPLING METHOD	DEPTH (FT.) BEGIN / END	PID READING (ppm)
01	- 000494	9/7/06	0.49	JJ	1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			2:30		----	
02	- 000495		0.49		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			3:50		----	
03	- 000496		0.28		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			4:50		----	
04	- 000497		0.38		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			5:55		----	
05	- 000498		0.36		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			6:40		----	
06	- 000499		0.37		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			7:15		----	
07	000500		0.33		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			6:45		----	
08	-000501	V	0.24	V	1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)			7:45		----	
09														----	
10														----	

COLLECTED & RELEASED BY:	DATE 9/7/06	TIME 1620	COOLER I.D.:			COMMENTS (see note on back):	
RECEIVED BY:	DATE 9/8/06	TIME 09:45	RELINQUISHED BY:	DATE / /	TIME :		
RECORD RETURNED BY:	DATE / /	TIME :					
COURIER: FED EX			SHIPPING NUMBER: 7921 2934 6778			QN	

DISTRIBUTION: WHITE – PROJECT FILE • CANARY – LAB RECEIPT • PINK – DATA MANAGEMENT • GOLDENROD – FIELD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK.

STL Sacramento (916) 373-5600

Rev. 2/05

SEVERN TRENT **STL**

LOT RECEIPT CHECKLIST
STL Sacramento

CLIENT Brown & Caldwell PM jed LOG # 39506

LOT# (QUANTIMS ID) GOF190128 QUOTE# 62684 LOCATION AC

	Initials	Date
	QW	6/19/06

DATE RECEIVED 6/19/06 TIME RECEIVED 0900

DELIVERED BY
- ☑ FEDEX
- ☐ CA OVERNIGHT
- ☐ CLIENT
- ☐ AIRBORNE
- ☐ GOLDENSTATE
- ☐ DHL
- ☐ UPS
- ☐ BAX GLOBAL
- ☐ GO-GETTERS
- ☐ STL COURIER
- ☐ COURIERS ON DEMAND
- ☐ OTHER

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☑ N/A

CUSTODY SEAL #(S)

SHIPPPING CONTAINER(S) ☐ STL ☑ CLIENT ☐ N/A

TEMPERTURE RECORD (IN °C) IR 1☐ 3☐ ☐ OTHER N/A

COC #(S)

TEMPERATURE BLANK Observed:_____ Corrected: ✓

SAMPLE TEMPERATURE
Observed: ambient Average:_____ Corrected Average:_____

COLLECTOR'S NAME: ☐ Verified from COC ☑ Not on COC

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A

LABELED BY.....

LABELS CHECKED BY.....

PEER REVIEW _____ ☑ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING
- WETCHEM ☑ N/A
- VOA-ENCORES ☑ N/A

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A

☑ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A

☐ Clouseau ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☑ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

Notes:

*1 Acceptable temperature range for State of Wisconsin samples is ≤ 4°C.